21世纪高等医学英语系列教材

第一版

Specialized English for Practical Oral Medicine

实用口腔医学专业英语

主编 童丹

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前　言

这本书的雏形是由本书主编在 2002 年编写并在我院口腔技术专业使用至今的院内教材《专业英语——口腔技术分册》。鉴于高职教育的新形势，为了更好地实现培养应用型人才的教学目的，并考虑到学生毕业后的实际工作情况，在这次重新整理编写并正式出版的过程中，编者们始终遵循实用性与专业性相结合的原则，力求形式多样、内容充实、结构完整；使学生通过本书的学习，能够切实将已学到的本专业技能与英语基本知识充分结合起来，为其在今后工作实践中的英语应用能力打下坚实的基础。

本书分三部分：

第一部分，医务英语对话（Medical English Dialogues）。共 10 单元，每单元分 A、B 两节对话。A 节为普通医患对话，B 节为口腔科医患对话。通过该部分的练习，能够使学生尽快掌握医患、医生、医护之间的医务英语对话的基本句式，提高外语口头交际能力，学以致用，实用性强。

第二部分，课文（Text）。共 10 单元，每单元包括 A、B 两篇课文。由于医学应具有较强的专业性，尽管学生在学习专业英语时已完成了其在大学期间的基础英语教程，但对医学英语的语言特点及大量的基本医学词汇尚不熟悉。因此，本书课文部分每单元的 A 课文以卫生保健、生理解剖常识为主，文章相对简单，意在夯实基础；B 课文则选取自口腔专业文献，文笔精炼、词汇丰富、专业性更强，具有一定的难度，故文后附有确切规范的译文。另外，总体上各单元的课文设置也遵循了由浅入深、由易到难的教学规律，以

便培养和建立学生对于医学专业英语学习的兴趣和信心。该部分的学习有助于提高学生专业英语阅读及翻译能力。

第三部分，阅读和翻译练习（Reading & Translating Practice）。通过以上两部分的学习，学生已具备了一定的医学专业英语阅读能力。该部分旨在巩固、练习并检测前一阶段的学习成果，力求进一步拓展学生的阅读和翻译能力，检测自身水平，为今后的专业英语学习指明方向。

另外，本书附录部分也经过了精心编排，内容实用丰富。不仅收录了医院及研究机构名称、医务人员职务名称、医学专业术语等基本内容，还挑选了三篇实务中的真实病例进行整理后译成英文供教学参考。

本书内容全面丰富，难度适中且循序渐进，既可作为高职高专口腔专业的专业英语课程用书，也可应用于其他医学专业，而且还可以作为英语爱好者了解熟悉医学英语的参考读物。

本书的各位编者均长期从事高校医学英语教学实践，经验丰富。尽管如此，书中不足之处在所难免，诚望广大读者批评指正，不吝赐教。

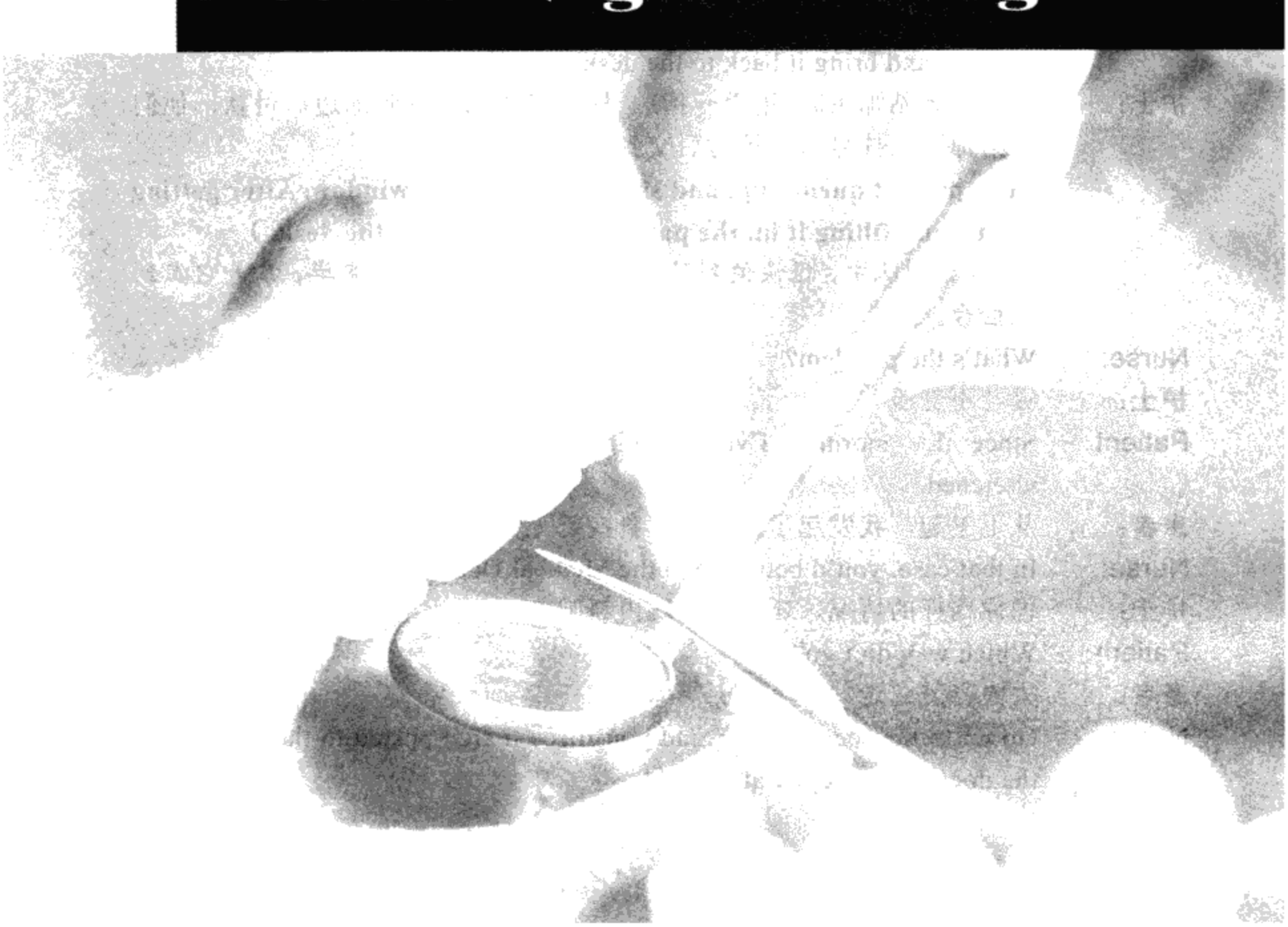
编　者

2012 年 2 月

Table of Contents

Part I

Medical English Dialogues



Unit One

Dialogue A Registration (挂号)

Patient: (To the nurse)
Excuse me, where do I queue up to register?

患者: (对护士)劳驾，我挂号该排哪一队？

Nurse: That is the line for new patients (pointing to line). The registration fee will be 3 yuan. Pay over there, and they will give you a registration card. Fill it in and bring it back to the desk.

护士: 初诊患者站那条队(用手一指)。挂号费 3 元。排到那边后付款，他们会给你一张挂号卡。填写后交到这儿。

(The patient queues up, and shortly reaches the window. After getting a card and filling it in, the patient takes it back to the desk.)
(患者站到队中，很快便到了窗口。患者得卡后填写完毕，拿着它回到预检台。)

Nurse: What's the problem?

护士: 哪儿不舒服？

Patient: Since this morning I've had high temperature, and I feel generally wretched.

患者: 从上午起，我发起了高烧，浑身疲乏无力。

Nurse: In that case, you'd better go to the Medical Department.

护士: 像你这样的情况，还是去看看内科吧。

Patient: Which way do I go?

患者: 去内科怎么走？

Nurse: Go up to the second floor, and you'll see it sign posted to the right. Give the doctor your registration card.

护士： 上了二楼，右边挂有内科的牌子。把挂号卡给医生就行了。

Patient: Is it very busy?

患者： 内科患者多不多？

Nurse: Normally yes, but today you are lucky.

护士： 往日很多，可今天却不多。

Patient: Oh, good. Thank you. (The patient goes to the second floor.)

患者： 噢，谢谢。(患者朝二楼走去。)

Dialogue B A Visit to the Dentist(看牙医)

Doctor: Hello, I'm Dr. Johnson. Please have a seat. How can I help you?

医生： 你好，我是约翰逊大夫。请坐，你哪儿不舒服？

Patient: I think the growth of my wisdom tooth is affecting the neighbouring tooth, and I'm feeling a lot of discomfort.

患者： 我觉得自己的智牙的生长使邻近的一只牙齿受到了影响，因而觉得非常不舒服。

Doctor: When does the pain occur? Is it only when you are eating or practically throughout the day?

医生： 疼痛一般发生在什么时候？吃东西时还是全天？

Patient: Um...only when I'm eating.

患者： 嗯……只是在吃东西的时候。

Doctor: OK. Does it just come when you eat cold food or is it constant for any types of food like hot or sour food?

医生： 噢。那么，是在吃凉东西的时候呢，还是不论在吃什么东西的时候，譬如，烫的东西或是酸的东西？

Patient: Oh, doctor, as soon as I pop something into my mouth, my teeth start protesting.

患者： 哦，医生，只要东西一放入嘴里，我的牙齿就会不舒服。

Doctor: Now, please come and sit over here. Open up, let me have a look. Well, it is not the problem of your wisdom tooth, but your molar has decayed quite badly. So I think it will relieve you a lot if I remove the tooth.

医生： 好吧，你坐到这边来吧。嘴巴张开，我来看一看。哦，问题不是出在智牙上，你的磨牙蛀得很厉害，我认为，要是把它拔了，你就能摆脱痛苦。

Patient: Oh, no, Doctor! It'll hurt too much!

患者：噢，不，医生。那会太痛了！

Doctor: Now calm down. We have so many types of painkillers you could spend a whole day taking your pick, and I guarantee that any one of them will immediately numb the area on which I'll be working. So don't worry. It will not hurt at all.

医生：噢，请不要慌，我们的止痛药品牌繁多，够你花上一天时间挑选的。其中任何一种都能在那个部位产生立竿见影的效果。所以你不要担心，一点儿都不疼。

Patient: OK, Doctor.

患者：那好吧，医生。

Doctor: Before I start, could you just rinse out please?

医生：我开始工作前，你先漱一漱口，好吗？

Patient: All right.

患者：行。

Unit Two

Dialogue A Seeing a Doctor(看病)

Patient: I would like to see a dentist.

患者： 我想见一位牙科医生。

Nurse: For a filling? A denture? Or a cleaning?

护士： 补牙？镶牙(做假牙)？还是洗牙(洁齿)？

Patient: I want to have a denture fitted (my teeth cleaned). Please make an appointment for me.

患者： 我要镶牙(洁齿)，请给我约个时间。

Nurse: OK! Next Wednesday, do you prefer 8 o'clock or 10 o'clock?

护士： 好吧！下星期三，你愿意上午八点钟还是十点钟来？

Patient: Ten o'clock suits me better.

患者： 十点钟对我更合适些。

Dialogue B Tooth Cleaning(洁齿)

Doctor: Hello, I'm Doctor Wang. Please take a seat. Tell me what your problem is?

医生： 你好，我是王医生。请坐，你的牙齿怎么啦？

Patient: Frankly speaking, Doctor, I haven't been for a dental check-up for years, and, as I speak, I'm sure you have noticed that my teeth are not in the prize-winning condition.

患者： 医生，不瞒您说，我已有好几年没来检查牙齿了，我说话时想必您已经注意到我那些牙齿看上去不雅观吧。

Doctor: Well, let me take a look first. Would you please just move over here?

(The dentist indicates the seat the patient is to sit in.) Considering you haven't had a check-up for years, you've obviously been brushing your teeth regularly because you don't have any cavities or gum problems. I would say, I only need to give you a scale and polish.

医生：不过，还是让我先来看一看。来，你坐过来吧。(牙医用手指指座位。)你好几年没检查过牙齿，牙齿上又没有蛀洞，牙床(牙龈)也没有什么问题，显然你按时认真地刷牙了。我想，我只需要给你做一次洁齿。

Patient: Is that going to hurt much?

患者：那痛不痛？

Doctor: Since you last visited a dentist, we have had a lot more advanced technology. So you can just close your eyes, forget about your worries and dream of glistening new gnashers.

医生：自从你上次看过牙医以来，我们的技术已先进了许多。你只需闭上眼睛，忘掉担心，洁齿后你的牙将会变得很漂亮。

Unit Three

Dialogue A Clinical Examination(临床检查)

During the clinical examination, the doctor made the following remarks with his patient:

在临床检查时，医生和患者进行了如下的对话：

Doctor: Can I have your arm? I'll take your blood pressure. Apart from iron tablets, are you taking anything else?

医生：请伸出胳膊，让我给你量血压。除了铁剂外，你还服过别的什么药吗？

Patient: Yes, for sleeping.

患者：服过安眠药。

Doctor: Let me look at your chest for a moment. Take a big breath. What are these pale patches on your cheeks?

医生：让我检查一下你的胸部。大口呼吸。你脸上的斑是怎么回事？

Patient: They come from taking sleeping pills.

患者：是在我服安眠药之后出现的。

Doctor: Breathe through your mouth. When did you have your teeth out?

医生：请张嘴呼吸。你牙齿什么时候脱落的？

Patient: Four years ago.

患者：4 年以前。

Dialogue B Alveolar Abscess(牙槽脓肿)

Patient: Doctor, I have got a gum-boil. A bad tooth may have to be pulled.

患者：医生，我牙龈上长了个包，有一个坏牙可能需要拔掉。

Doctor: H'm, there is an abscess round that tooth. An incision should be made to

drain the pus.

医生： 晤，你这牙旁边长了个脓肿。必须切开把脓放出来。

Doctor: Yes, the tooth is indeed in very bad condition and should be extracted. But not until the inflammation has subsided. Today, I will drill a little hole in the tooth for pus-drainage to stop the pain.

医生： 是的，你这牙已经坏了，无法修补，需要拔掉。但要等炎症消了以后才能拔。今天先在牙上钻个小洞将脓引流出来，这样可以止痛。

Patient: Please do what you think is necessary.

患者： 你看着需要怎样做就怎样做吧！

Doctor: First, I'll give you an injection of anesthetic. Have you had anesthetics before?

医生： 我先给你打一针麻药，你以前注射过麻药吗？

Patient: No.

患者： 没注射过。

Doctor: The injection may hurt a little, but it'll prevent your feeling any pain during the operation. . . Now the pus has been let out. Please rinse your mouth. A drain has been left at the incision. Please come back again tomorrow to have the drain replaced. Here is a prescription for some medicines for the inflammation, pain-killing and mouth-rinsing.

医生： 注射麻药时会有点痛，但手术时就不会感觉痛了……现在脓流出来了。请漱漱口。我在切口的地方放了一个引流条。明天请再来，换一下引流条。这是处方，有消炎药、止痛药和漱口药水。

Unit Four

Dialogue A Influenza(流感)

Dr. Zhang: Has he ever had the history of febrile convulsion?
张医生： 他既往有高烧惊厥史吗？
Intern: Yes. The attack occurs each time his temperature is over 39℃.
实习医生：有，每当他体温超过 39℃时，就会发作。
Dr. Zhang: Is there an epidemic fever in his kindergarten?
张医生： 他们幼儿园里有发烧流行吗？
Intern: Yes. Two-thirds of children in his kindergarten have fever this week. They have the symptoms similar to his.
实习医生：有，这周幼儿园里有 2/3 的孩子都发烧了，症状与他相似。
Dr. Zhang: I see. Let me take a physical examination for him.
张医生： 我明白了，来给他查体吧。
Intern: No abnormal signs except for redness and enlargement of his tonsils.
实习医生：除了双侧扁桃体充血、肿大外，无其他异常。
Dr. Zhang: No rashes?
张医生： 无皮疹吗？
Intern: No.
实习医生：没有。
Dr. Zhang: Any blood test?
张医生： 做血液检查了吗？
Intern: Yes. White blood cell show WBC 4, 000/mm^3, N34%, L66%. May I think of this case as the infection of upper respiratory tract?
实习医生：做了，白细胞计数 4000/mm^3（4 × 10^9/L），中性 0.34，淋巴 0.66，我可以认为这个病例是上呼吸道感染吧？
Dr. Zhang: Yes, but what's the causative pathogen?

张医生： 可以，但病原是什么呢？

Intern: Upon analysis of clinical characteristic, laboratory and epidemic data, we can almost confirm the diagnosis of influenza. The causative pathogen is surely influenza virus, do you agree?

实习医生：依据临床特征、实验室及流行病学资料，我们几乎可以确诊为流感了，那病原当然是流感病毒了，你同意吗？

Dr. Zhang: Yes, I think so. It'll be much more perfect that we have the evidence about isolation of virus.

张医生： 同意。要是有病毒分离的依据就更完整了。

Intern: May I consider the prognosis of influenza is generally good?

实习医生：流感的预后一般都是很好的，是吗？

Dr. Zhang: Yes, in general speaking, it's not poor, but it's no harm to keep an eye on the underlying problems, for example, brain damage, myocarditis, etc. Oh, it's time for us to give our orders. Stop here.

张医生： 一般说来，预后良好，但留心那些潜在的问题是有益处的，如脑损害、心肌炎等，哦，我们该开医嘱了，就到这里吧。

Dialogue B Inflammation of the Gums(牙龈炎)

Patient: Doctor, my gums always bleed and my mouth is emitting a bad smell.

患者： 我的牙龈总出血，嘴里还发出一种难闻的味道。

Doctor: How long have you had this condition?

医生： 这情况有多久了？

Patient: Since about a year ago.

患者： 差不多 1 年了。

Doctor: Does the bleeding occur by itself or is it induced by some irritation? That is to say, do your gums bleed when you brush your teeth, when you eat, or do they bleed for no apparent reason at all?

医生： 是无缘无故就出血，还是由什么刺激引起的，像刷牙、吃东西，还是没有任何明显的原因就出血呢？

Patient: I don't know. All I know is that it seems to happen very often.

患者： 我不清楚，我只知道它经常出血。

Doctor: Have you noticed any bleeding spots on your skin?

医生： 你发现你的皮肤上有出血点吗？

Patient: No.

患者：没发现。

Doctor: Let me do a check-up. H'm, there is a lot of dental calculus on the teeth and this may cause inflammation and bleeding of the gums. I would recommend a cleaning of the teeth. This can only be done on Wednesday morning. Please go to the nurse to make an appointment. I'll give you a medicinal liquid. You will apply a little of it on the edges of the gums after brushing your teeth in the evening. It is very important that you pay more attention to your dental hygiene. The upper and lower rows of teeth should be brushed separately, one after the other. All the crevices must be cleared of remnant food. Besides, I'll give you a kind of Chinese powder. Massage your gums with it twice a day, about three or four minutes each time after you have brushed your teeth.

医生：我来给你检查一下。唔，你牙齿上有很多牙垢，这就可能引起牙龈发炎出血。我建议你做一次洁齿(洗牙)，这只能在每星期三上午做。请到护士那里约个时间。我给你一种药水，每天晚上刷牙后在牙龈上涂抹一些。你必须注意牙齿卫生。上面的一排牙和下面的一排牙要分开刷，刷完上面再刷下面。把缝隙里的残余食物都刷干净。我再给你一种中药面，每天两次刷牙后用用它涂擦牙龈，每次三四分钟。

Patient: Thanks. Should I come back for another consultation?

患者：谢谢你。我还需要再来吗?

Doctor: It would be better if you come back once more after the teeth-cleaning.

医生：洗完牙后最好再来一次。

Unit Five

Dialogue A Laceration(撕裂伤)

Doctor: How were you injured?

医生：你是怎样受伤的？

Patient: I tripped and fell, banging my forehead quite hard. My wife wrapped a bandage around it to stop the bleeding.

患者：我绊倒了，前额部碰得很重，我妻子用绷带给我包扎止住了血。

Doctor: Did you lose a lot of blood?

医生：出了很多血吗？

Patient: Not too much.

患者：不太多。

Doctor: Were you unconscious then?

医生：受伤时你昏过去了吗？

Patient: No.

患者：没有。

Doctor: Did your nose or ears bleed after the accident?

医生：受伤时有没有耳、鼻出血？

Patient: No.

患者：没有。

Doctor: The wound is rather large, so I will stitch it up.

医生：这伤口相当大，我来把它缝上。

Patient: Will it hurt?

患者：痛吗？

Doctor: Oh, no, it won't be painful. We'll give you a local anesthetic. You're a brave fellow. . . Well, we're all finished. That wasn't so bad, was it?

医生：不，不会痛的。我给你局部麻醉。你很勇敢……好了，做完了。怎么

样？不太痛吧！

Patient: No, not very.

患者：不怎么痛。

Doctor: Have you had an anti-tetanus injection lately?

医生：你最近打过破伤风类针吗？

Patient: I think the only one I have had was about five years ago.

患者：我记得 5 年前打过一次。

Doctor: Well, I think you'd better have another one now.

医生：我想你现在需要再打一次了。

Patient: Whatever you say, doctor.

患者：大夫，按你说的做吧。

Doctor: Come again after three days and we'll examine the wound.

医生：3 天以后来看伤口。

Dialogue B Pulpitis(牙髓炎)

Doctor: Sit in the chair, please. Lean your head back against the chair now. What's the trouble?

医生：请坐到椅子上。把头往后靠在椅子上。有什么不舒服吗？

Patient: I have an awful toothache.

患者：我牙痛得厉害。

Doctor: Which tooth is causing the trouble?

医生：哪个牙痛呢？

Patient: I don't know. The right side of my face and head hurt.

患者：我不知道是哪个牙。右边的脸和头都痛。

Doctor: How long have you had this pain?

医生：痛了多长间了？

Patient: Two days.

患者：两天。

Doctor: Does the pain increase at night?

医生：晚上痛得更重吗？

Patient: Yes, it hurt so much at night that I couldn't sleep.

患者：对，晚上痛得不能入睡。

Doctor: Does the pain increase when you take hot or cold food?

医生： 吃冷的或热的东西痛得更厉害吗？

Patient: Yes, it's particularly painful if I drink something cold.

患者： 是的，喝冷的饮料就特别痛。

Doctor: Please open your mouth and let me examine your teeth. One of your back teeth has a big cavity. We'll take an X-ray picture first. The X-ray room is on the third floor. Let's go there now.

医生： 请张开口我给你检查一下。你后面的牙有个大洞。我们先拍张 X 线片。X 线室在三楼。我们现在到那儿去吧！

After Examination 检查之后

Patient: What's the result?

患者： 结果怎样？

Doctor: The pulp is exposed. I will give you an injection first, and then I'll put some medicine in the cavity to kill the nerve.

医生： 牙髓已露在外面了。我先给你注射一针麻药，然后放点药在洞里把神经杀死。

Patient: OK.

患者： 嗯。

Doctor: Rinse your mouth and spit into the basin. Now open your mouth wide please. This injection may hurt a little, but don't move, and the pain will soon stop.

医生： 漱口，把漱口水吐在盆里。请把口张大。注射药时会有点痛，不要动，很快就不痛了。

Doctor: Does your mouth feel numb now?

医生： 嘴是不是感觉有点麻？

Patient: Yes.

患者： 是的。

Doctor: Good, avoid chewing on that tooth today. I'll give you some tablets for the pain. If necessary, take one tablet. Here is your prescription. Come back in two weeks for the permanent filling.

医生： 好了，今天不要用坏牙那边嚼东西。我给你一些止痛药片，痛的时候服 1 片。这是处方。两周后再来做个永久性的填充。

Unit Six

Dialogue A Cold(感冒)

Doctor: What seems to be the problem?
医生：有什么问题吗？
Patient: I think I have a cold.
患者：我想我感冒了。
Doctor: How long have you been sick?
医生：您病多久了？
Patient: For two days.
患者：两天了。
Doctor: What symptoms do you have?
医生：您有些什么症状？
Patient: I have a running nose and I ache all over.
患者：流鼻涕并且全身痛。
Doctor: Do you have a fever?
医生：您发烧吗？
Patient: I haven't taken my temperature yet, but I feel feverish.
患者：我还没量过体温，但是我觉着发烧。
Doctor: Do you have a cough?
医生：咳嗽吗？
Patient: No, I don't.
患者：不咳嗽。
Doctor: Do you have a sore throat?
医生：嗓子痛吗？
Patient: Yes, my throat feels swollen. It's sore.
患者：是的，我觉着嗓子肿了，很痛。

Doctor: I want to look at your throat. Open your mouth. Please say "Ah".

医生：我检查一下您的嗓子。请张开口说"啊"。

Doctor: It's only a common cold. Nothing to worry about. You should rest for a few days. I'll write you a certificate for three days' leave. Here is some Chinese traditional medicine, which is very effective for treating colds. You'll be fine in a few days.

医生：只不过是普通感冒。不要紧的。您需要好好休息几天，我给您开三天假。这是中药，治感冒很有效。我看用不了几天就会好的。

Dialogue B Sensitive Denture(牙齿过敏)

Patient: My tooth is very sensitive to cold.

患者：我的牙齿对冷特别敏感。

Doctor: There's quite a bit of erosion. Which way do you brush your teeth?

医生：你的牙齿上有许多腐蚀的地方。你用什么方法刷牙？

Patient: I usually brush them horizontally.

患者：我习惯于横着刷。

Doctor: Oh, up and down is better. The way you are doing rubs all the natural enamel off, you know.

医生：噢，上下刷较好。像你那种刷法很容易将牙釉质刷掉。

Patient: It's the correct thing to do.

患者：是应该上下地刷。

Doctor: Today, I'Il apply a solution on the erosion for desensitization.

医生：今天我在腐蚀的地方涂点药脱敏。

Unit Seven

Dialogue A How to Take Medicinal Herbs?

(如何煎制服用中药？)

Patient: How do I take (make) the herb medicine?

患者： 我怎样服(熬)中药呢？

Pharmacist: (1) Put the herbs into a pot. Add about 300c.c. of cold water. Simmer gently for 20 minutes. Drain the solution. The amount left will be 40 to 50 c.c. This is the first dose. Don't throw the herbs away. Do the same in the evening. That is the second dose. Take the first dose in the morning, and the second in the evening.

药剂师： 把草药放进锅内。加入 300 毫升冷水。用慢(文)火煎 20 分钟，将药水滗出， 大约 40～50 毫升。这是头煎。不要将药扔掉。仍照原法晚上再煎一次，这是二煎。头煎早晨服，二煎晚上服。

(2) We can make the solution for you for six days. Take one bottle daily, half in the morning, and half in the evening. Please put them in the refrigerator or keep them in a very cool place. Don't take the medicine while it is cold.

我们可以给你煎出 6 天的药。每天服一瓶，上午半瓶，下午半瓶。瓶子要放在冰箱里或是凉爽的地方。不能服冷药。

Dialogue B Dental Caries(龋齿)

Patient: There's a hole in my back tooth. The filling has fallen out. The tooth that has been filled before has started to hurt now.

患者：我后面的牙有个洞。补过的牙里的填充物掉出来了。这颗以前补的牙现在又开始痛了。

Doctor: Do you have any pain? Does the tooth hurt when coming in contact with sweet or cold things?

医生：痛吗？接触甜食和凉的食物痛吗？

Patient: It hurts just a little.

患者：有一点痛。

Doctor: There is a deep cavity, so we'll have an X-ray taken of that tooth just to make sure about the apex. If it is in good condition, I'll treat it.

医生：有一个很深的洞，照一张 X 线片检查一下根尖情况吧，如果根尖好，可以治疗。

After X-ray examination. **X 光拍片检查之后。**

Doctor: This tooth can be filled.

医生：这牙可以补。

Doctor: I'll clean it now. Let me know if it hurts.

医生：我要冲洗一下它。若是痛就告诉我。

Doctor: Ok, now, bite please. Now open your mouth again. Do you feel anything abnormal when clench your teeth? Then, please come here for polishing after two or three days.

医生：好了，现在请咬一下。请再张开口。咬紧时有什么不正常的感觉吗？那么请两三天后来磨光。

Unit Eight

Dialogue A Crying(啼哭)

Parent: My child cried the whole night. He wouldn't sleep at all.

家长： 我的孩子整夜哭，他简直不睡觉。

Doctor: Did he cry in spells? Was there any vomiting? What about his bowel movement?

医生： 他是断断续续地哭吗？呕吐吗？他的大便怎么样？

Parent: Yes, he cried in spells. He perspired a lot when he cried. He vomited twice today. He had two stools today, which contained undigested food.

家长： 他哭一阵，停一阵。他哭的时候出很多汗。今天吐了两次，有两次大便，里面还有没消化的食物。

Doctor: I think he cried because of abdominal discomfort.

医生： 我想他哭的原因是因为肚子不舒服。

Doctor: It's difficult to examine his abdomen satisfactorily when he cries. I'll give him a little sedative and examine him when he quiets down.

医生： 我给他一点镇静药，因为哭的时候很难检查。等他安静下来再检查。

Parent: All right.

家长： 好吧。

After examination. 检查之后。

(1) Doctor: It's nothing serious. The pain is probably due to indigestion. I'll give him a sedative to quiet him down. Don't give him too much to eat. If he continues to cry, bring him back.

医生： 看来没什么大问题，多半是因为消化不良。我给他一点镇静剂使他安静。别给他吃太多东西。若是他还继续哭，再带他来。

(2) Doctor: He may be suffering from some illness, but it's difficult to say at the moment. We would like to admit him a few hours for further examination.

医生： 他可能有病，目前还很难确定。我们希望他留在这里进一步观察几个小时。

Dialogue B Extracting a Tooth(拔牙)

Patient: I have a bad tooth. Should it be filled?

患者： 我有一颗牙齿坏了，你看还能补吗？

Doctor: This tooth is too bad to be filled any more. It had to be pulled out. Do you agree to have it extracted?

医生： 这牙齿坏得太厉害了，已经不能补了。需要拔掉。你同意吗？

Patient: It's up to you to decide what to do.

患者： 由你决定吧！

Doctor: Have you ever had an injection of procaine? Have you ever been allergic to anything?

医生： 你注射过普鲁卡因吗？你对什么东西曾经过敏吗？

Patient: No.

患者： 没有。

Doctor: That's fine. Now I'll give you an injection. Please open your mouth as wide as you can. And relax. It won't hurt much. Now you've gotten the injection. Please wash your mouth and spit out the water into the spittoon. If you feel your heart palpitate a little, it doesn't matter. That's the effect of the procaine, and it'll soon be over. Now, do you feel numb? Do you have a sensation of swelling on the lips and tongue? This tooth is in very bad condition. It needs a careful operation, which may last a little longer than usual... Now, the tooth is out. Please bite and hold the cotton ball tightly in place. Don't spit it out until half an hour from now. You may eat after two hours. But don't rinse your mouth today because it may cause bleeding. Please go to make the payment and get the medicines.

医生： 很好。我要给你打麻醉药了。请尽量把嘴张大，放松。不会太痛。现在针打完了。请漱一下口，把水吐在痰盂里。如果你觉得有点心跳加快（心悸），没有关系，那是普鲁卡因的反应，一会儿就会过去。你的嘴有麻木感吗？你的嘴唇和舌头有肿胀感吗？你这牙很糟糕，需要很仔细地拔，那就要多用点时间……好，出来了。请在拔牙的地方咬紧棉球，过半小时再吐出来。两小时后可以吃东西。但今天别漱口，以防出血。请去交费、取药。

Unit Nine

Dialogue A Having the Prescription Filled(I)

(取药·1·)

Patient: How do I use these eye-drops and ointment?

患者： 我怎样使用这些眼药水和眼药膏呢？

Pharmacist: Put the eye-drops into your right eye 4-6 times a day, each time one to two drops. Squeeze a bit of the ointment on your eyelid every night.

药剂师： 将这种眼药水滴入右眼，每天 4～6 次，每次 1～2 滴。每晚往眼皮里挤一点眼药膏。

Patient: How do I apply the nose drops?

患者： 我怎样使用这种滴鼻剂呢？

Pharmacist: Bend your head back as far as possible and then put them in.

药剂师： 尽量把头向后仰，然后将药滴进鼻孔。

Patient: How do I apply the ear drops?

患者： 我怎样使用滴耳剂呢？

Pharmacist: Turn your head to the one side, put one to two drops into your ear and press the tragus for a few seconds.

药剂师： 将头歪向一侧，往耳朵里滴 1～2 滴药水，再把耳屏按几秒钟。

Dialogue B Putting in a False Tooth (镶牙)

(1)

Patient: I have two teeth missing here. What kind of false teeth can I have?

患者：我这儿缺了两个牙。我能装什么样的牙？

Doctor: Well, I'll show you some sample models, and then you can choose any one you like, either a fixed bridge or a removable partial denture. The fixed bridge costs. . . yuan, while the removable partial denture costs. . . yuan. They are made of different materials and the former is more complicated to construct.

医生：我想给你看看样品模型，你可以选择你所喜欢的一种。你可以选固定桥或活动假牙。固定桥是……元，活动假牙是……元。它们制作的材料不同，而且前者工序复杂些。

(2)

Patient: All my teeth have been extracted and I want to have false teeth.

患者：我全口牙都拔掉了，我想镶牙。

Doctor: I will see if the wound has healed. If it has, we can take an impression.

医生：让我检查一下拔牙的创口长好没有。若长好了，我们便可以取印模了。

Doctor: Here are the sample models. A full denture set costs. . . yuan. You'll have to come five times according to your appointments before the work can be completed. It is quite a complicated process.

医生：这些是样品模型。全口假牙是……元。需按预约时间来，五次才能做完。这是比较复杂的工作。

Unit Ten

Dialogue A Having the Prescription Filled(Ⅱ)

(取药·2·)

Patient: How do I take these medicine?

患者： 我怎样服这些药呢？

Pharmacist: (1) One tablet, three times a day.

药剂师： 一天 3 次，一次 1 片。

(2) Two tablets, four times a day.

一天 4 次，一次 2 片。

(3) Two tablets at night.

晚上服 2 片。

(4) Take one tablet of this pain-killer if you feel pain, but not more than once every four hours.

假如你觉着痛就吃 1 片止痛片，但每次必须间隔 4 个小时。

(5) One line (half line) three times a day. Shake it well before taking it.

每天 3 次，每次 1(半)格。服用前摇匀。

(6) Please put it under your tongue and don't swallow it.

请把药放在舌下，不要往下咽。

(7) Please suck it.

请含服。

(8) Please dissolve the pill in water before taking it.

服前请将药丸放在水中溶解。

(9) One teaspoon, three times a day.

每天 3 次，每次 1 茶匙。

Dialogue B Temporo-mandibular Arthralgia
(下颌关节疼痛)

Patient: When I open my mouth, I feel a pain in front of the ear and in the head. There is also a cracking sound.

患者：当我张嘴时，我感到耳朵前面和头都痛，而且还有很大的响声。

Doctor: Since when have you had this condition?

医生：这种情况有多久了？

Patient: It has been like this since I tried to bite something hard.

患者：这是在有一次我咬了硬的东西之后发生的。

Doctor: Please open your mouth. Close it. Open again. Move the lower jaw left and right. Do you feel sore here when I press this place?

医生：请张开嘴。合上，再张开。将你的下颌向左右动一下。当我按这个地方的时候你感到痛吗？

Patient: Yes, I do. It feels quite sore.

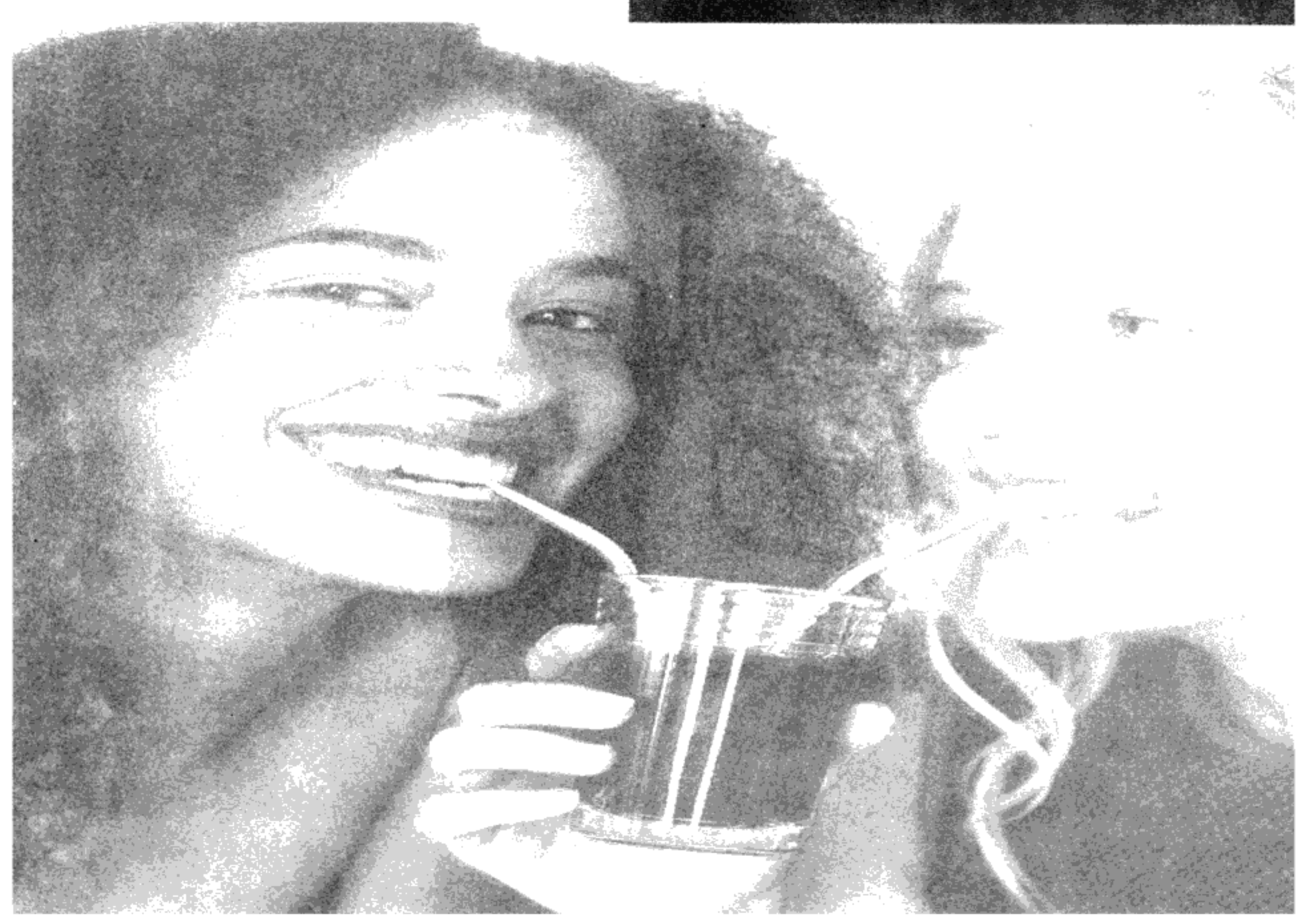
患者：是的，很痛。

Doctor: There is something wrong with your mandibular joint. It has been overstrained. I would recommend physiotherapy. Please go with this paper to the Physiotherapy Department for treatment.

医生：你的下颌关节出了向题，那是因为咬东西时用力过大。我建议你做一下理疗。请拿着这张单子到理疗科理去做理疗。

Part II

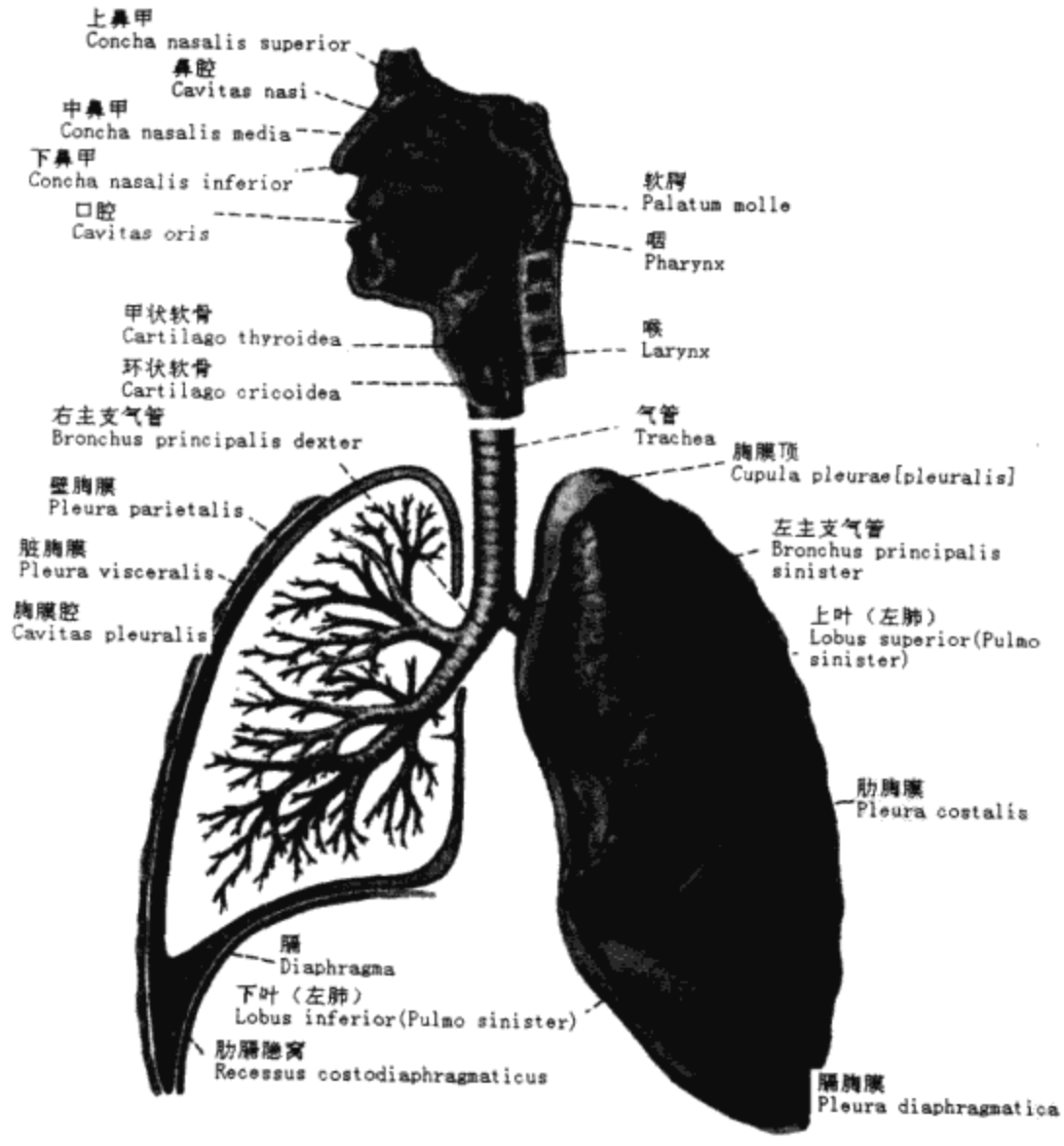
Text



Unit One

Text A Why We Breathe

It is just as important for the body to get rid of its waste gases as it is to get the oxygen in. The waste gases, largely carbon dioxide, are eliminated from the blood into the air sac of the lung and are blown off as exhaling takes place. This constant exchange of gases goes on continuously twenty-four hours a day. New oxygen is brought in with each inspiration and carbon dioxide is eliminated with each expiration. From the lungs, oxygen is borne by the bloodstream to the heart, which in turn sends it to every part of the body.



Thus breathing really involves two distinct processes: the one consists of getting the air from the outside into the lungs; the other gets the oxygen from the lungs to the various organs of the body via the red blood cells in the bloodstream. The exact mechanism of breathing is a complicated one. At each inspiration, we enlarge the chest cavity by contracting the muscles that elevate the ribs and depress the diaphragm. The rhythm and rate of breathing are controlled by a center in the brain which speeds up and slows down the rate, depending upon the need of the body for more oxygen. When exercising, the need for oxygen is increased; consequently the respiratory center in the brain speeds up the breathing apparatus to supply the need. When asleep, the rate of breathing is at a minimum because the need for oxygen is then very small.

The air that we breathe, chemically speaking, is a mixture of different gases, of which approximately 20 per cent is oxygen and 79 per cent nitrogen. The remaining 1 per cent is made up of a great many gases in very small amounts. The gas that the human body must have is oxygen, since oxygen is required for all body functions.

Word List

rid (of) [rid] *v.* 使摆脱
carbon dioxide ['kɑ:bən dai'ɔksaid] *n.* 二氧化碳
sac [sæk] *n.* 囊
blow [bləu] (blew [blu:], blown [bləʊn]) *v.* 吹
exhale [eks'heil] *v.* 呼气
constant ['kɔnstənt] *a.* 继续不断的
exchange [iks'tʃeindʒ] *n.* 交换
continuously [kən'tinjʊəsli] *ad.* 连接地，无间断地
inspiration [ˌinspə'reiʃən] *n.* 吸气
expiration [ˌekspi'reiʃən] *n.* 呼气
bear [bɛə] (bore [bɔ:], borne [bɔ:n]) *v.* 运，运走
stream [stri:m] *n.* 流，河流
distinct [dis'tiŋkt] *a.* 个别的，特殊的，清楚的
process ['prəuses] *n.* 过程，进行
via ['vaiə] *prep.* 经过，经由
exact [ig'zækt] *a.* 精密的，正确的
cavity ['kæviti] *n.* 窝，腔
contract [kən'trækt] *v.* 收缩
depress [di'pres] *v.* 压下，压低，使沮丧

centre ['sentə] *n.* 中心，中枢
speed (up) [spi:d] (sped [sped], speeded) *v.* 使赶上，促进
slow (down) [sləu] *v.* 弄慢，使慢
exercise ['eksəsaiz] *v.* 运动
consequently ['kɔnsikwəntli] *a.* 因而；所以
respiratory ['rispərə,tɔ:ri] *a.* 呼吸的
minimum ['miniməm] *n.* 最小，最少限度
chemically ['kemikəli] *ad.* 在化学上
mixture ['mikstʃə] *n.* 混合，混合物
nitrogen ['naitrədʒən] *n.* 氮

Text B Structure of the Tooth

The greater part of the tooth consists of dentine. The root dentine is covered by a thin layer of cementum and the dentine of the crown is covered by enamel. Internally, the dentine contains the dental pulp in the pulp chamber. The root of the tooth occupies a socket in the alveolar bone to which it is attached by the connective tissue fibres of the periodontal membrane.

The Pulp. The pulp consists of loose connective tissue and carries the blood, lymphatic and nerve supply to the tooth. Where it meets the dentine, the surfaces of the pulp is covered by a layer of odontoblasts. These are columnar cells with oval nucleus, and each cell has a process that lies within a corresponding tubule in the dentine. Immediately internal to the odontoblast layer, there is a narrow cell-free zone.

Dentine. Physically and chemically, dentine is very similar to bone, consisting of 30 per cent organic material and water, and 70 pent cent inorganic material. As in bone, the organic fraction consists of collagen fibrils embedded in a mucopolysaccharied cementing substance, and the inorganic fraction consists mainly of calcium phosphates in the form of apatite crystals. Unlike bone, however, dentine contains no cell bodies but only cell processes, those of the odontoblasts, in the dentinal tubule. The dentinal tubules are 2 to 3μ in diameter and each runs through the whole thickness of the dentine from the cell body of the odontoblast to the outer surface of the dentine. There are cross-communications between the tubules, containing anastomosing branches of the odontoblast processes. Calcification of the dentine occurs in spherical or globular masses or calcospherites, which coalesce to give a uniformly mineralized tissue.

Where calcification is incomplete, the separate globules can be seen, with the uncalcified or hypocalcified ground substance in between them. Such areas are referred to as interglobular dentine.

Enamel. Mature enamel can be studied only in ground sections unless special methods are employed, since it is completely removed by routine histological decalcification. The inorganic material is an apatite and small organic fraction is mainly of keratinous nature. Enamel consists of rods or prisms in an interprismatic substance that is slightly less mineralized than the rods themselves. Each rod runs from the enamel-dentine junction through the whole thickness of the enamel to its surface, following a slightly wavy course. The rods have a "fish-scale" appearance in cross-section, with an average diameter of 4μ.

Cementum. Cementum is a modified type of bone that covers the dentine of the tooth root in a thin layer. Two varieties of cementum occur normally acellular and cellular. Acellular or primary cementum, the type first formed, covers the root from the enamel cementum junction to close to the apex. As the name implies, this thin layer of cementum is homogeneous and contains no cells. Cellular or secondary cementum covers the apical portion of the root. Lacunae containing the cementoytes are present, in a similar manner to the lacunae for osteocytes in bone. The cementocytes are very similar morphologically to osteocytes though they are usually somewhat larger. The processes of the cementocytes do not radiate in all directions like those of osteocytes, but tend to be directed away from the dentine towards the periodontal membrane. Well-marked incremental lines running parallel with the root surface are seen in the cementum and it is quite normal to find successive increments of both acellular and cellular cementum occurring in any order or distribution. Cementum is continuously deposited throughout life. The principal function of cementum is to give attachment to fibres of the periodontal membrane.

Periodontal Membrane. The connective tissue fibres generally termed the periodontal membrane constitute a suspensory ligament that attaches the tooth to bony alveolus. Fibres are attached to the cementum, and for the most part run in bundles to the alveolar bone. Those, from the cementum nearest to the crown, however, run across the alveolar crest to the cementum of the adjacent tooth, and some also run into the gingiva.

Word List

socket ['sɔkit] *n.* 窝，孔，穴
periodontal [ˌperiəu'dɔntl] *a.* 牙周的
membrane ['memˌbrein] *n.* 膜
loose [lu:s] *a.* 松的，宽的
surface ['sə:fis] *n.* 表面，面
odontoblast [ɔ'dɔntəblɑ:st] *n.* 成牙质细胞
nucleus ['nju:kliəs] (复 nuclei['nju:kliai]) *n.* 核，核心
tubule ['tju:bju:l] *n.* 小管，细管
layer ['leiə] *n.* 层
narrow ['nærəu] *a.* 狭窄的；狭隘的
cell-free *a.* 无细胞的
organic [ɔ:'gænik] *a.* 有机体的，器官的
inorganic [ˌinɔ:'gænik] *a.* 无机的
fraction ['frækʃən] *n.* 碎片，小部分
collagen ['kɔlədʒən] *n.* 骨胶原，成胶质
fibril ['faibril] *n.* 原纤维，纤丝
embed [im'bed] *v.* 埋
mucopolysaccharide [ˌmju:kɔˌpɔli'sækəraid] *n.* 粘多糖(类)
apatite ['æpətait] *n.* 磷灰石
crystal ['kristəl] *n.* 水晶，结晶(体)，水晶玻璃
unlike [ʌn'laik] *a. prep.* 不同的，不像，和……不一样
dentinal ['dentinəl] *a.* 牙(本)质的
μ = micron ['maikrɔn] 微，微米
diameter [dai'æmitə] *n.* 直径
cross-communication 相互交通
anastomose [æ'næstəməuz] *v.* (使)吻合，(使)网结
spherical ['sfiərikəl] *a.* 球形的，球的
globular ['ɡlɔbjulə] *a.* 球状的，有小球的
calcospherite [ˌkælkə'sferait] *n.* 钙球
coalesce [ˌkəuə'les] *v.* 接合，愈合，结合
uniformly [ju:ni'fɔ:mli] *ad.* 一致地
mineralize ['minərəlaiz] *v.* 使矿物化，使含无机化合物
uncalcify [ʌn'kælsəfai] *v.* 未钙化
hypocalcify [ˌhaipə'kælsəfai] *v.* 低钙化

decalcification ['di:kælsifi'keiʃən] *n.* 脱钙
keratinous [kə'rætinəs] *a.* 角化的
rod [rɔd] *n.* 杆
prism ['prizəm] *n.* 棱柱(体)，釉柱
interprismatic [ˌintəpriz'mætik] *a.* 棱柱间的
wavy ['weivi:] *a.* 波状的，有波纹的
fish-scale *a.* 鱼鳞状的
acellular [ei'seljulə] *a.* 非细胞组成的
imply [im'plai] *v.* 含有……的意思
homogeneous [ˌhɔmə'dʒi:njəs] *a.* 均匀的，相似的
apical ['æpikəl] *a.* 顶端的，在顶端的
lacuna [lə'kju:nə] (复 lacunae[lə'kju:ni:]) *n.* 腔隙，陷窝
cementocyte [si'mentəsait] *n.* 牙骨质细胞
osteocyte ['ɔstiəsait] *n.* 骨细胞
morphologically [ˌmɔ:fə'lɔdʒikəli] *ad.* 形态学地
radiate ['reidieit] *v.* 辐射，发射(光，热等)
incremental [ˌinkri'mentəl] *a.* 增长的
successive [sək'sesiv] *a.* 连续的，接连的，相继的
suspensory [sə'spensəri] *a.* 悬挂的，吊着的
ligament ['ligəmənt] *n.* 韧带，系带
crest [krest] *n.* 嵴，脊突，顶

牙齿的结构

牙齿的大部分由牙本质构成。根部牙本质外面覆盖着薄层的牙骨质，冠部牙本质外面覆盖着釉质。在内部，牙本质含有牙髓腔，内有牙髓。牙根位于牙槽窝内，借牙周膜的结缔组织纤维附着于牙槽骨。

牙髓：牙髓由疏松结缔组织构成，给牙齿带来血液、淋巴和神经。牙髓与牙本质相邻处的牙髓表面覆盖着一层成牙质细胞。这些是柱状细胞，核卵圆形，每个细胞都有一个位于与牙本质相应的小管内的突起。紧靠成牙质细胞层的内面有狭窄的无细胞区。

牙本质：在理化方面，牙本质与骨非常相似，含有 30%的有机物和水，70%的无机物。像骨一样，有机部分由埋在粘多糖的粘连质中的胶原纤维组成；无机物部分主要由磷灰石晶体形式的磷酸钙组成。然而，与骨不同之处，牙本质没有细胞体，仅含

有位于牙本质小管内的成牙质细胞突。牙本质小管直径 2 到 3 微米，每根小管均从成牙质细胞的体部开始，通过牙本质的整个厚度直到表面。小管之间相互交通，其中含有成牙质细胞突的吻合支。牙本质呈球状(球块状或钙球状)钙化，钙球相互融合形成均一的矿物化组织。钙化不完全的地方，能够看到分离的钙球以及其间未钙化或钙化不全的基质。这样的区域称为球间牙本质。

釉质：除非用特殊的方法，成熟的釉质仅能用磨片进行研究，因为用常规的组织脱钙方法釉质将完全溶解。釉质的无机物是磷灰石，少量的有机物主要是角质性的。釉质由釉柱和柱间质组成，后者的钙化程度比釉柱本质稍低。每根釉柱自釉牙本质界起，穿过整个釉质，达釉质表面，沿途呈轻度波浪形。釉柱横切面呈“鱼鳞状”形态，平均直径为 4 微米。

牙骨质：牙骨质是骨组织的一种变型，薄薄地覆盖在根部牙本质表面。正常情况下，牙骨质有两种类型：无细胞性牙骨质和细胞性牙骨质。无细胞性牙骨质或原发性牙骨质，即最初形成的一型，覆盖在自釉牙骨质界到根尖附近的根部牙本质表面。顾名思义，此薄层牙骨质是均匀性的，不含细胞。细胞性或继发性牙骨质覆盖在根尖部。存在含有牙骨质细胞的陷窝，与骨中含有骨细胞的陷窝相似。牙骨质细胞与骨细胞在形态上非常相似，虽然通常它们稍大些。牙骨质细胞的突起不像骨细胞的突起那样向四面放射，而倾向于远离牙本质，朝向牙周膜方向。牙骨质内可见与牙根表面平行的明显增生线，在无细胞性牙骨质和细胞性牙骨质中找到不同排列或分布的连续增生线是正常的。牙骨质一生中持续不断沉积。牙骨质的主要功能是与牙周膜的原纤维相附着。

牙周膜：一般称为牙周膜的结缔组织纤维构成一个悬韧带，使牙齿附着于牙槽骨上。纤维附着于牙骨质，其中大部分呈束状伸向牙槽骨。附着于近冠部牙骨质的那些纤维越过牙槽脊到达邻牙的牙骨质，还有一些进入牙龈。

Answer the questions

1. What is the difference between inspiration and expiration?
2. What is the main function of the respiratory center in the brain?
3. What is the meaning of “the rhythm and rate of breathing”?
4. Make a description of the process of breathing in you own words.
5. “The exact mechanism of breathing is complicated.” Why is it so?

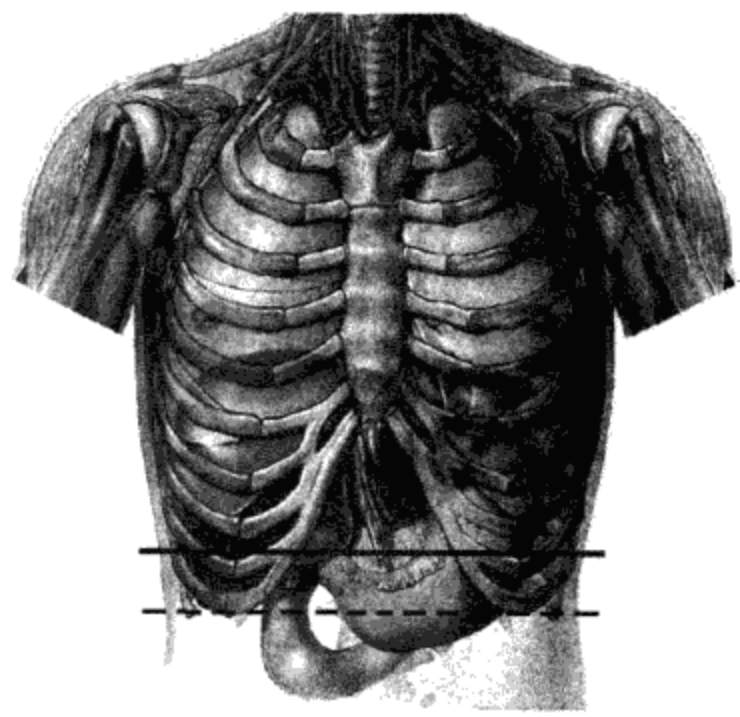
Unit Two

Text A Physical Examination of the Chest

The patient must assume a perfectly natural and unconstrained position. It is preferable, whenever possible, to have the patient in the erect posture, the arms hanging naturally at the sides.

If the standing posture is not possible, the next choice is the sitting posture. The patient is to sit erect, the arms hanging loosely at the sides, head somewhat elevated, but muscular rigidity should be carefully avoided. When the lateral surface of the chest is inspected, the patient's hands should be clasped behind his head, allowing free exposure. In a very sick patient, the recumbent posture is the only possible one, the patient lying entirely relaxed. When lateral and posterior views are required of such a patient, he should be gently turned from one side to the other, the facial expression being meanwhile noted for any signs of pain or distress. The effect upon respiration should also be observed during this procedure.

The chest is examined anteriorly, laterally and posteriorly with equal care and attention. The colour of the skin, general development, musculature, and the size, shape and symmetry of the thorax are to be noted. First the chest is studied as a whole, then the regions of the one side are compared with the corresponding regions on the opposite side.



The whole chest should be exposed to a strong steady light preferably daylight so as to avoid confusing shadows. The surface of the chest under examination should always be turned towards the examiner.

During the examination, respiration should be uninterrupted, the respiratory rate and rhythm and the degree of the chest expansion being kept under observation. The movements of one side of the chest should be compared anteriorly, laterally and posteriorly with those of the corresponding part of the other side.

Word List

assume [ə'sju:m] *v.* 采取
natural ['nætʃərəl] *a.* 自然的
unconstrained ['ʌnkən'streind] *a.* 没有拘束的，自由的
position [pə'ziʃən] *n.* 位置，姿势
preferable ['prefərəbl] *a.* 更可取，好一些
erect [i'rekt] *a.* 直立的
posture ['pɔstʃə] *n.* 姿势
hang [hæŋ] (hung[hʌŋ], hanged) *v.* 挂，垂，悬
loosely ['lu:sli] *ad.* 松弛地，宽松地
somewhat ['sʌmhwɔt] *ad.* 稍微
elevate ['eliveit] *v.* 举起，抬高
rigidity [ri'dʒiditi:] *n.* 强直，僵硬
lateral ['lætərəl] *a.* 横的，侧的
inspect [in'spekt] *v.* 检查，审查
clasp [kla:sp] *v.* 扣住，握紧
exposure [iks'pəuʒə] *n.* 暴露，显露
recumbent [ri'kʌmbənt] *a.* 躺着的
entirely [en'taiəli] *ad.* 完全
relax [ri'læks] *v.* 松弛，舒畅
posterior [pɔ'stiəri:ə] *a.* 后面的
view [vju:] *n.* 看，观察
facial ['feiʃəl] *a.* 脸的
expression [iks'preʃən] *n.* 表情，脸色
note [nəut] *v.* 注意
sign [sain] *n.* 征候
distress [dis'tres] *n.* 苦痛
anteriorly [æn'tiəri:əli] *ad.* 前面
equal ['i:kwəl] *a.* 相等的，一样的
attention [ə'tenʃən] *n.* 注意，留心

musculature ['mʌskjulətʃə] *n.* 肌肉组织
symmetry ['simitri] *n.* 匀称，对称
thorax ['θɔ:ræks] *n.* (*pl.* thoraces ['θɔ:rəsi:z])胸腔
compare [kəm'pɛə] *v.* 比较，对照
corresponding [ˌkɔris'pɔndiŋ] *a.* 相应的
opposite ['ɔpəzit] *a.* 相对的，对面的
preferably ['prefərəbli] *ad.* 宁可，更好
confuse [kən'fju:z] *v.* 使混乱
shadow ['ʃædəu] *n.* 影子
examiner [ig'zæminə] *n.* 检查者
uninterrupted ['ʌnˌintə'rʌptid] *a.* 不停的，连续的
rhythm ['riðəm] *n.* 节律
expansion [iks'pænʃən] *n.* 膨胀，扩张
observation [ˌɔbzə:'veiʃən] *n.* 观察，注意

Text B Histology of the Oral Cavity and Face

No special description of the normal structure of the tissues here is necessary, though some remarks on oral mucosa may be useful.

The mucous membrane surrounding the necks of the teeth is the gingiva or gum. The gingiva is firmly attached to the tooth in a cuff-shaped manner, but the arrangement of the tissues is such that a shallow sulcus is formed. This gingival sulcus tends to collect food and debris, particularly in the absence of adequate oral hygiene, and this provides a favourable situation for bacterial growth. Even in gingivae that appear completely normal clinically, at least a sparse infiltration of macrophages and lymphocytes can be noted in the subepithelial connective tissue in region of the gingival sulcus. The epithelium is normally keratinised, though often in otherwise normal tissues keratinisation is lacking, or there may be parakeratosis. The epithelial pegs and dermal papillae are long and slender. The mucous membrane covering the jaws farther away from the gingiva constitutes the alveolar mucosa. Here the epithelium lacks stratum corneum and epithelial pegs are poorly developed or absent.

The mucous membrane elsewhere in the mouth shows some variations in the different areas. The epithelium of the hard palate is well keratinised and has numerous long pegs. Mucous glands are present in the subepithelial connective tissue posteriorly.

The palatine papilla contains the blind endings of the nasopalatine ducts, which are lined by columnar epithelium with numerous goblet cells. Small islets of cartilage are sometimes found in this area, derived from the paraseptal cartilages. Islets of epithelium may be present, usually close to the papilla but also elsewhere in the midline of the palate. These may show cornification. They are the remnants of the epithelium that covered the line of fusion of the palatal processes. The oral aspect of the soft palate is covered by non-keratinised squamous epithelium. The free borders of the nasal surface are also covered by squamous epithelium but the remainder of this surface is covered by ciliated columnar epithelium. Numerous mucous glands are present in the submucosa.

The epithelium of the skin of the lip is normally well keratinised. The epithelial pegs are few and numerous sebaceous glands, hair follicles and sweat glands are present in the subepithelial connective tissue. The epithelium of the red zone of the lip is also keratinised, but here the epithelial pegs are long and numerous. The correspondingly long numerous dermal papillae carry the rich capillary supply that gives this zone its red colour. Hair follicles are absent here though occasional sebaceous glands are seen. The mucous membrane proper of the lip is not keratinised. The epithelial pegs are short and blunt, and the labial mucous glands are present in the subepithelial connective tissue.

The epithelium of the cheek lacks keratinisation. Mucous glands are present in the submucosa. Sebaceous glands are also not infrequently found, in the area lateral to the corner of the mouth. These appear to the naked eyes as small yellow spots ("Fordycespots").

The mucosa of the floor of the mouth is not keratinised. The epithelial pegs are short. Mucous glands are present in the submucosa.

Word List

histology [hi'stɔlədʒi] *n.* 组织学，组织结构
description [dis'kripʃən] *n.* 描述
remark [ri'mɑ:k] *n.* 陈述
cuff-shaped *a.* 呈袖套状的
sulcus ['sʌlkəs] (*pl.* sulci ['sʌlsai]) *n.* 沟
debris ['debri:s] *n.* 碎屑
sparse [spɑ:s] *a.* 稀少的，稀疏的
macrophage ['mækrəfeidʒ] *n.* 巨噬细胞

subepithelial [sʌbep'θi:liəl] *a.* 上皮下的
keratinise ['kerətinaiz] *v.* 角化
keratinisation [ˌkerətini'zeiʃən] *n.* 角化
parakeratosis [ˌpærəˌkerə'təusis] *n.* 角化不全
peg [peg] *n.* 钉
dermal ['də:məl] *a.* 皮肤的
papilla [pə'pilə] (*pl.* papillae [pə'pili:]) *n.* 乳头
stratum ['streitəm] (*pl.*strata ['streitə]) *n.* 层
corneum ['kɔniəm] *n.* 角质层
absent ['æbsənt] *a.* 不在的，缺乏的
variation [ˌvɛəri'eiʃən] *n.* 变化，变动(的程度)
palate ['pælit] *n.* 腭
palatine ['pælətain] *a.* 腭的
blind endings *a.* 盲端
columnar [kə'lʌmnə] *a.* 圆柱的，柱形的
goblet ['gɔblit] *n.*(无柄)酒杯
islet ['ailit] *n.* 小岛
derive [di'raiv] *v.* 起源，由来，取得
paraseptal [ˌpærə'septl] *a.* 中隔旁的
cornification [ˌkɔ:nifi'keiʃən] *n.* 角(质)化
fusion ['fju:ʒən] *n.* 熔化，熔合，融合
squamous ['skweiməs] *a.* 鳞状的
sebaceous [si'beiʃəs] *a.* 皮脂的，分泌脂质的
follicle ['fɔlikəl] *n.* 滤泡，小囊，卵泡
blunt [blʌnt] *a.* 钝的
naked ['neikid] *a.* 肉眼的

口腔和面部的组织学

对此处组织的正常结构不必作专门的描述，然而重点叙述口腔粘膜是有益的。

围绕牙颈部的粘膜是牙龈。牙龈呈袖套状紧紧地附着于牙齿，但是与牙齿之间有一浅沟。牙龈沟容易积聚食物及各种碎屑，特别是在口腔卫生差的情况下，便提供了宜于细菌生长的环境。甚至临床上完全正常的牙龈，在牙龈沟的上皮下结缔组织中均能发现少量巨噬细胞和淋巴细胞浸润。虽然在其他部位的正常组织，上皮常常没

有角化，但是牙龈上皮在正常情况下有角化或不全角化。上皮钉和真皮乳头长而狭窄。覆盖在离牙龈远一点颌骨上的粘膜为牙槽粘膜。这里的上皮缺乏角质层，上皮钉较少或没有。

口腔其他部位的粘膜在不同的区域表现不同。硬腭的上皮有较好的角化及许多长的上皮钉。在后部上皮下结缔组织中有许多粘液腺。腭乳头内包含有鼻腭管的盲端，此管内衬柱状上皮，其中有大量杯状细胞。在此区内有时可见起源于中隔旁软骨的软骨小岛。在靠近腭乳头处常常有上皮小岛。但此小岛也可见于腭中缝的任何部位。这些小岛可能出现角化。它们是覆盖在腭突融合线上的上皮残余。软腭的口腔面覆盖着无角化的鳞状上皮。鼻腔面的游离缘也覆盖着鳞状上皮，但鼻腔面的其他地方覆盖着纤毛柱状上皮矿。在粘膜下层有许多粘液腺。

唇的皮肤上皮正常时角化较好。上皮钉少而短，在皮下结缔组织中有大量皮脂腺、毛囊和汗腺。唇红的上皮也有角化，但这里的上皮钉长而多。真皮乳头也相应地长而多，并含有丰富的毛细血管，因此使该区呈红色。虽然偶尔见到一些皮脂腺，但是没有毛囊。唇部的固有粘膜没有角化。上皮钉短而宽，在上皮下结缔组织中有唇粘液腺。

颊上皮没有角化。在粘膜下层有粘液腺。口角旁区的皮脂腺并非罕见。肉眼观为小的黄色斑(福代斯氏斑)。

口底粘膜没有角化。上皮钉较短。粘膜下层有粘液腺。

Answer the questions

1. What shoud be noticed in chest examination?
2. The whole chest should be exposed to a strong steady light in chest examination, why?
3. What is the meaning of "the corresponding part of the other side"?
4. What is the "confusing shadows"?

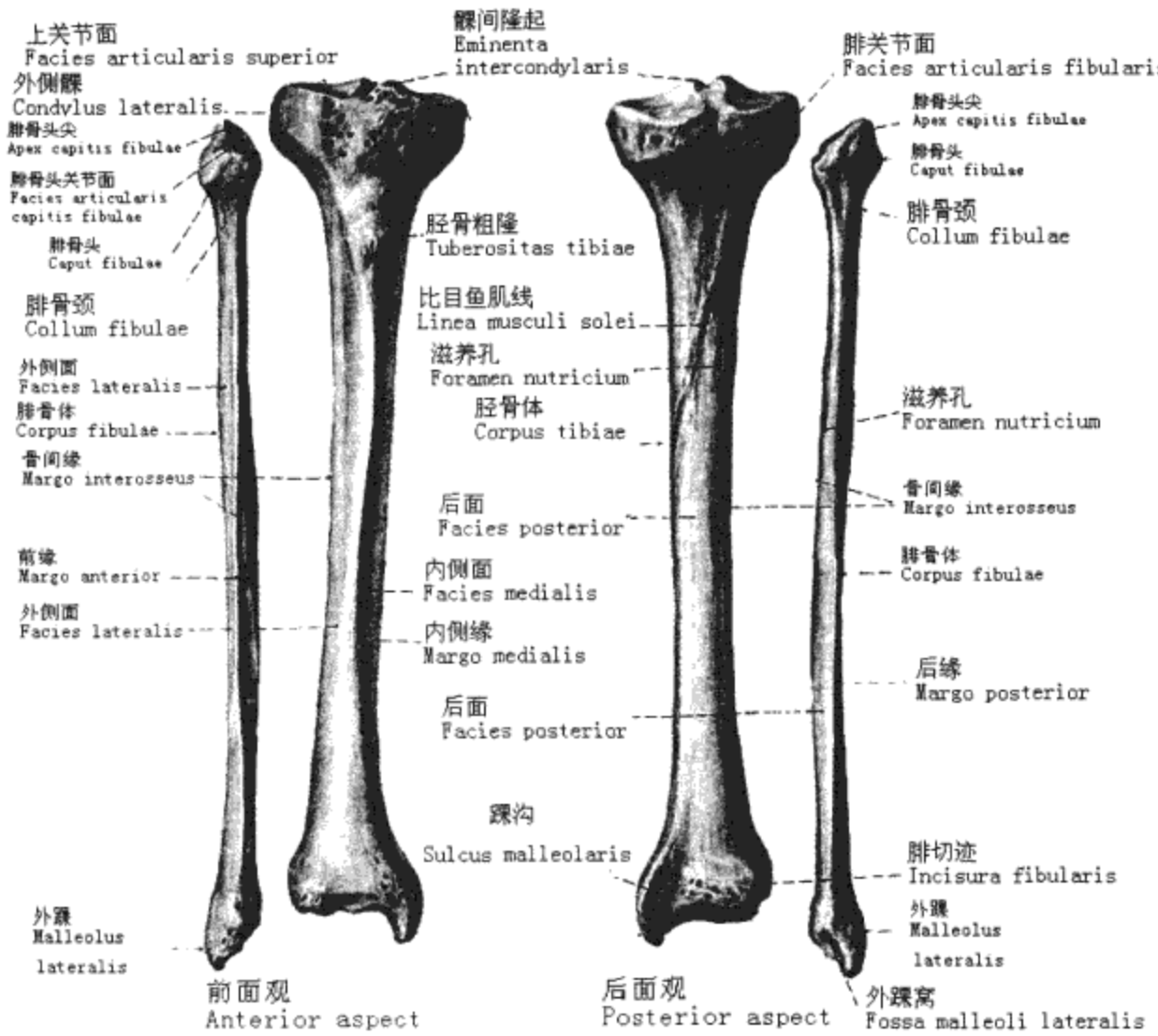
Unit Three

Text A The Bony Structure

The skeleton, which is composed of two hundred and six bones, forms the framework and supports the body as the reinforced concrete construction supports the modern building. The bones act as levers for the muscles in movement and protect the vital organs, such as the brain, heart, and lungs. The shape and size of bones depend upon their use; for instance, the flat bones of the skull are used as a covering for the brain, the long bones of the legs for strength and speed, and the small bones in the ear for the transmission of sound. The outside covering of bones, the periosteum, contains many blood vessels and nerves.

Some of the bones of the skeleton are so arranged that movement cannot take place. The bones of the head and face except that of the lower jaw are fitted so closely together that movement is not possible. Slight movement is permitted between the ribs and sternum, a hinge joint is found at the knees and elbows, and very free movement at the hip and shoulder. Bones are kept in proper relation to each other by muscles and ligaments. Muscles are attached to bones by white, inelastic fibrous tissue, called tendons.

The spinal column is made up of a series of thirty-three vertebrae. A vertebra is an irregularly shaped bone with projections. At the union of the projections with the body of the vertebra, a ring is formed through which the spinal cord passes. It is through the flexibility of the spinal column that we are able to bring the body into various positions.



胫骨和腓骨
The tibia and fibula

Word List

bony ['bəʊni] *a.* 骨的
skeleton ['skelitn] *n.* 骨骼
framework ['freimwə:k] *n.* 架子
reinforced concrete 钢骨水泥
construction [kən'strʌkʃən] *n.* 构造，建筑
act [ækt] *v.* 发生作用，充当，作
lever ['li:və] *n.* 杠杆
instance ['instəns] *n.* 例
skull [skʌl] *n.* 头颅
transmission [trænz'miʃən] *n.* 传导
periosteum [ˌperi'ɔstiəm] *n.* 骨膜
arrange [ə'reindʒ] *v.* 排列
fit [fit] *v.* 配合
closely ['kləʊsli] *ad.* 紧密地

sternum ['stə:nəm] (*pl.* sterna ['stə:nə]) *n.* 胸骨
hinge [hindʒ] *n.* 铰链
joint [dʒɔint] *n.* 关节
elbow ['elbəu] *n.* 肘
free [fri:] *a.* 自由的，游离的
hip [hip] *n.* 髋
ligament ['ligəmənt] *n.* 韧带
attach [ə'tætʃ] *v.* 附着
inelastic [ˌini'læstik] *a.* 无弹性的
fibrous ['faibrəs] *a.* 纤维的
tendon ['tendən] *n.* 腱
spinal column ['spainl'kɔləm] 脊柱
series ['siəri:z] *n.* (*pl.* series) 系列，连串
vertebra ['vɜ:təbrə] *n.* (*pl.* vertebrae ['vɜ:tibri:]) 椎骨
irregularly [i'regjuləli] *ad.* 不规则地
shape [ʃeip] *v.* 成形
projection [prə'dʒekʃən] *n.* 突起
union ['ju:njən] *n.* 接合
spinal cord 脊髓
flexibility [ˌfleksi'biliti] *n.* 易弯性

Text B Extraction of Teeth

The extraction of teeth, however accomplished, is a surgical operation involving bony and soft tissues of the oral cavity, access to which is restricted by the lips and cheeks, and further complicated by the movement of the tongue and mandible. It is essential that this phase of oral surgery be given the same careful study and application of sound surgical principles as is given to surgery in any other part of the human body.

The following are indications for the extraction of teeth:

(a) teeth that are foci of infections;

(b) teeth with nonvital pulps, or acute or chronic pulpitis when root canal therapy is not indicated;

(c) in cases of severe periodontoclasia in which excessive bony support of the teeth

is destroyed;

(d) teeth not treatable by apicoectomy;

(e) teeth mechanically interfering with the placement of restorative appliances;

(f) teeth not restorable by operative dentistry;

(g) impacted teeth;

(h) supernumerary teeth;

(i) retained deciduous teeth when a succedaneos tooth is present, and in normal position to erupt;

(j) teeth with fractured crown;

(k) malposed teeth not amenable to orthodontic treatment;

(1) roots;

(m)teeth that are traumatizing soft tissues, if other treatment will not prevent this trauma.

The special instruments for the extraction of teeth and roots are forceps and elevators. In special cases, where bone has to be removed, other instruments are required such as chisels and mallet, burs, etc. A very large variety of forceps and elevators have been devised. A few well-selected instruments will suffice for all but very extraordinary cases.

Word List

extraction [ik'strækʃən] *n.* 拔出

access ['ækses] *n.* 进路，入口

restrict [ris'trikt] *v.* 限制

periodontoclasia [ˌperiəˌdɔntə'kleizjə] *n.* 牙周溃坏

apicoectomy [ˌæpikəu'ektəmi] *n.*(牙)根尖切除术

appliance [ə'plaiəns] *n.* 矫正器

dentistry ['dentistri:] *n.* 牙科学

impacted [im'pæktid] *n.* 阻生的(牙)

supernumerary [ˌsjupə'nju:mərəri] *v.* 多余；额外

succedaneous [ˌsʌksi'deiniəs] *a.* 替代的；代用的

erupt [i'rʌpt] *v.* 长出，萌出

malposed [mæl'pəuzd] *a.* 错位的；异位的

amenable [ə'menəbəl] *a.* 顺从的

orthodontic [ˌɔ:θə'dɔntik] *a.* 正牙的

traumatize ['trɔ:mətaiz] *v.* 受外伤

elevator ['eliveitə] *n.* 牙挺
chisel ['tʃizəl] *n.* 凿子
mallet ['mælit] *n.* 槌
bur [bə:] *n.* (牙科用)圆头锉
devise [di'vaiz] *v.* 设计；发明

拔 牙

拔牙，无论怎样拔，都是一种累及口腔骨组织及软组织的外科手术。它的进路被唇、颊所限制，并且被舌及下颌骨的活动所妨碍。重要的是，对这一口腔外科手术所给与的重视和应用的正确外科原则，应和对人体任何其他部位的外科手术一样。

其适应症如下：

(a)病灶牙；

(b)死髓牙，或患急性、慢性牙髓炎炎而对根管不能进行治疗的；

(c)严重牙周溃坏、牙的骨质支持遭到过度破坏的；

(d)不能进行根尖切除治疗的牙；

(e)机械性阻碍修复体放置的牙；

(f)不能修复的牙；

(g)阻生牙；

(h)多生牙；

(i)后继牙在正常位置将萌出的未脱落乳牙；

(j)残冠牙；

(k)不能矫正的错位牙；

(l)残根；

(m)用其他疗法不能防止其损伤软组织的牙。

拔牙及取根的特殊器械有牙钳和牙挺。特别病例需要去骨时，须用其他器械，如骨凿、小锤、圆头锉针等。已设计成许多种不同的牙钳和牙挺。除特殊病例外，少数精选的器械即足够用于所有的拔牙病例。

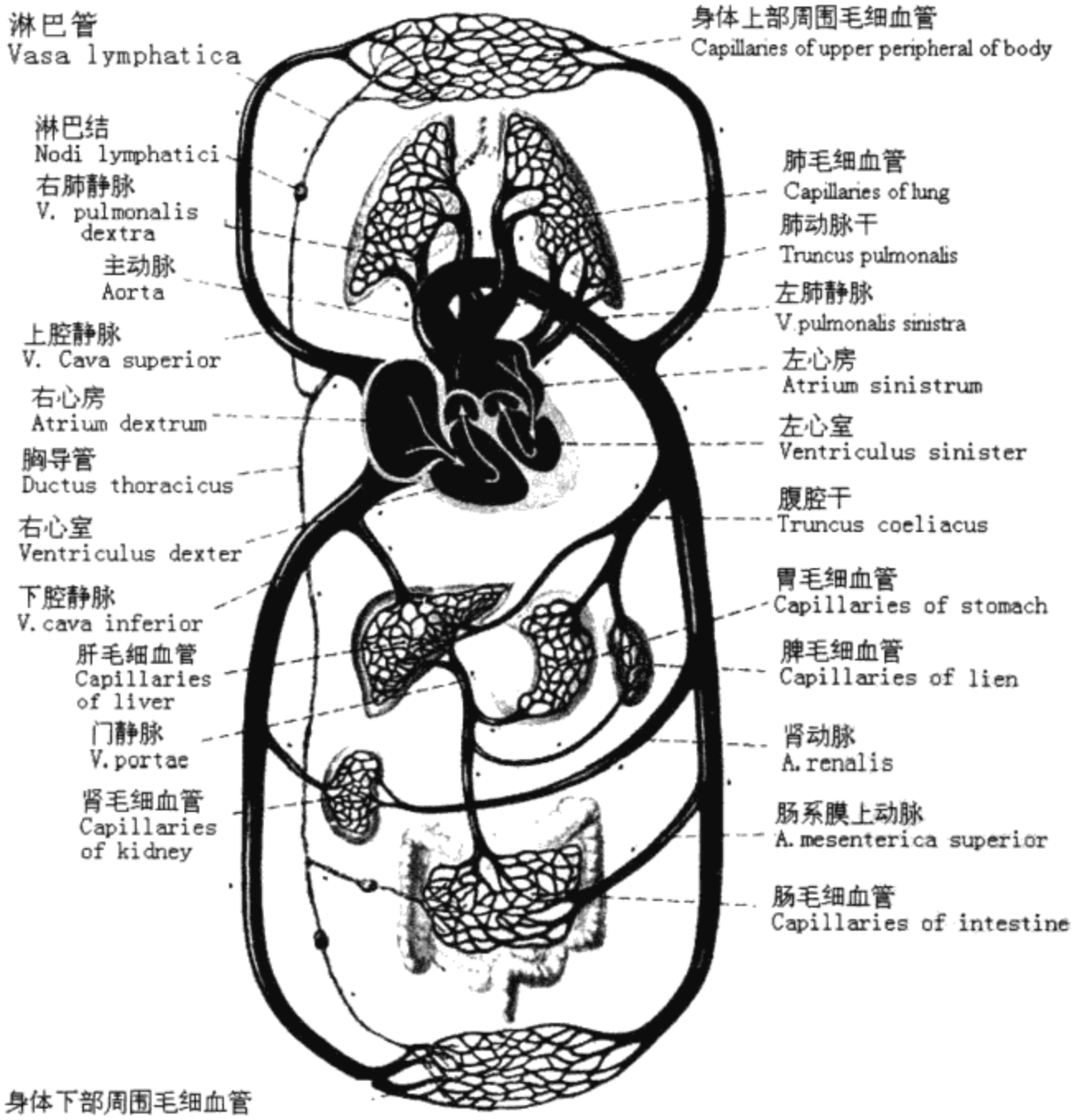
Answer the questions

1. What do the bones act as in movement?
2. By what are the muscles attached to bones?
3. What makes the shape and size of bones?
4. How does the transmission of sound happen?

Unit Four

Text A The Circulatory or Vascular System

The circulatory or vascular system is divided into (a) the blood vascular system, through which the blood circulates, and (b) the lymph vascular system, containing a colourless fluid known as lymph.



The blood vascular system consists of the following parts: (a) a muscular pump, the heart, which pumps blood to all parts of the body; (b) a series of conducting vessels, which are of two kinds, viz. arteries, conveying blood from the heart to the tissues, and veins, conveying blood from the tissues to the heart; (c) numerous very fine vessels, microscopic in size, situated in the tissues themselves and known as capillaries. It is by way of the capillaries that the blood passes from the arteries to the veins. Also, the capillaries have very thin walls, and it is through these thin walls alone that exchange of materials can occur in both directions, i.e., from the blood to the tissues and from the tissues to the blood.

The lymph vascular system differs from the blood vascular system in that it is not a circulatory system but simply a drainage system and possesses no pump. The system commences in the tissues as numerous blind lymphatic capillaries, which resemble the blood capillaries in structure, and are found in the close proximity to them in practically all the tissues of the body. From the lymphatic capillaries the lymph is drained by the lymphatic vessels, in which the direction of flow is always towards the heart. Hence the conducting vessels are of one kind only, corresponding to the veins of the blood vascular system. The lymph is in fact eventually carried by them to the large veins at the root of the neck. Interposed along the course of the lymphatic vessels are structures known as lymph nodes, through which the lymph slowly percolates.

Word List

vascular ['væskjələ] *a.* 血管的，脉管的
circulate ['sə:kjuleit] *v.* 循环
colourless ['kʌləlis] *a.* 无色的
pump [pʌmp] *n.* 唧筒,泵
conduct [kən'dʌkt] *v.* 传导
artery ['ɑ:təri] *n.* 动脉
microscopic [ˌmaikrə'skɔpik] *a.* 用显微镜才能看见的，微观的
situated ['sitjueitid] *a.* 位于
capillary ['kæpəˌleri] *n.* 毛细管
drainage ['dreinidʒ] *n.* 排液
commence [kə'mens] *v.* 开始
resemble [ri'zembl] *v.* 相似
close [kləuz] *a.* 紧密的
proximity [prɔk'simiti] *n.* 接近

drain [drein] *v.* 排液，输纳
eventually [i'ventjuəli] *ad.* 最后
interpose [ˌintə'pəʊz] *v.* 插入
along [ə'lɔŋ] *prep.* 沿着
course [kɔ:s] *n.* 进路， 进程
node [nəud] *n.* 节
percolate ['pɜ:kəleit] *v.* 滤过

Text B Routine Gingivectomy

The objective of gingivectomy is the elimination of the soft tissue wall of the pocket and creation of a morphologic condition which will allow proper hygienic measures. The rationale for this procedure is derived from an understanding of the pathogic events that occur within the confines of the pocket.

Gingivectomy is a surgical procedure and should be carried out according to surgical principles. Preliminary measures should include the removal of irritating deposits to encourage at least partial resolution of the inflammation. This will reduce hemorrhagic tendency during surgical procedure and improve tissue response following it.

Where apprehension is present before surgery, efforts should be made to allay such fear. "Verbal" premedication often is all that is necessary; anesthesia should be adequate, and all instruments used should be sterilized properly. The use of rubber gloves is advocated; and the patient should be draped with sterile apron and towels. Aspiration equipment is a helpful adjunct to maintain a clear field of vision for the operator.

The armamentarium may consist of the following:

Gingivectomy knives;

Special knives for distal surfaces;

Sickles, hoes, files, curettes;

Pocket explorer and pocket depth probe; hemostat, tissue forceps, and scissors gauze; especially cut small triangles or cotton pellets; epinephrine;

Local anesthetic solution and small syringe;

Spray-suction outfit;

Waxed paper pad and instruments for mixing and applying surgical dressing;

Zinc oxide-eugenol surgical dressing;

Special instruments (interproximal file, spoon); curette.

Topical anesthesia should be used prior to injection. The needle should be short and fine (28 to 30 gauge). The use of a short syringe is advocated, especially in cases where small areas or one segment of the mouth is treated.

The anesthetic may be administered either as a block or infiltration anesthesia, depending upon the area to be treated. Infiltration anesthesia is the administration of choice because of the accompanying reduction of hemorrhage. Infiltration anesthesia with routine strength anesthetic gives freedom from pain during the operation, as far as gingiva and underlying bone are concerned. It does not always give freedom from pain as far as the accompanying root planing is concerned, for which stronger pulpal anesthesia may be required. Therefore, in case of hypersensitive cervices, conduction anesthesia with strong local anesthetics with epinephrine 1:50,000 is indicated, possibly plus some small amount of infiltration in order to maximalize anesthetic potency and obtain a fair amount of vaso-constriction.

Properly administered local anesthesia insures a completely painless procedure and minimizes postoperative pain. The less anesthetic used in the proper place, the less postoperative pain can be expected. If deep pockets are present, injection of one drop of the anesthetic into the papilla can assure satisfactory anesthesia. In cases in which a block anesthesia is indicated, for example, on the lingual surface of the maxillary teeth, 0.5 c.c. of anesthetic injected into the area of the palatal foramen will assure anesthesia for the palatal gingival surfaces of maxillary molars and premolars. Injection in the area of the incisal palatal foramen will anesthetize the gingiva on the lingual surfaces of the incisors.

The incision follows the course of pocket depth. The incision should be beveled to assure physiologic postoperative contours. The surgical scalpel should be extremely sharp, so that the incision may be made without mutilating the tissues. The blade must be thin enough to penetrate the tissues easily, especially in the interproximal spaces. The initial incision should sever the gingiva completely and end as closely as possible to the bottom of the pocket. The bevel should be correct because it is difficult, even with a sharp knife, to perform a second incision. This is particularly so when the tissues are inflamed and friable.

After the severed tissue has been removed, the interproximal areas are packed tightly with small, triangalar gauze sponges or cotton pellets soaked in epinephrine solution 1:1000. This usually will stop hemorrhage in three to five minutes. Any calculus not previously removed is eliminated at this time. Zinc oxide-eugenol dressing is placed immediately after the gauze sponges are removed.

Word List

gingivectomy [dʒindʒi'vektəmi] *n.* 牙龈切除术
rationale [ræʃə'næl] *n.* 原理，理论
preliminary [pri'liminəri] *a.* 预备的；初步的；开端的
apprehension [ˌæpri'henʃən] *n.* 忧虑；恐惧
allay [ə'lei] *v.* 减轻
verbal ['və:bəl] *a.* 词语的，言语的
premedication [pri:ˌmedi'keiʃən] *n.* 术前用药法
advocate ['ædvəkeit] *v.* 提倡
aspiration [ˌæspə'reiʃən] *n.* 吸出
armamentarium [ˌɑ:məmen'tɛəriəm] (*pl.* armamentaria) *n.* 一套设备
file [fail] *n.* 锉
curette [kjuə'ret] *n.* 刮匙
hemostat ['hi:məstæt] *n.* 止血器
gauze [gɔ:z] *n.* 纱布
pellet ['pelit] *n.* 小球
epinephrine [epi'nefrin] *n.* 肾上腺素
spray-suction [sprei'sʌkʃən] *n.* 喷吸
outfit ['autfit] *n.* 装备
wax [wæks] *v.* 上蜡
pad [pæd] *n.* 垫，纱布垫
zinc [ziŋk] *n.* 锌
oxide-eugenol ['ɔksaid 'ju:dʒinɔl] *n.* 氧化丁香酚
interproximal [ˌintə'prɔksiməl] *a.* 邻间的,邻接近端间的
topical ['tɔpikəl] *a.* 局部的
segment ['segmənt] *n.* 节；段
reduction [ri'dʌkʃən] *n.* 减少
maximalize [ˌmæksimə'laiz] *v.* 增加到最大限度
potency ['pəʊtnsi] *n.* 效能
vaso-constriction [va:səkən'strikʃən] *n.* 血管缩小
minimize ['minimaiz] *v.* 减至最少
palatal ['pælətəl] *a.* 腭的
bevel ['bevəl] *v.* 斜切；弄斜
contour ['kɔntʊə] *n.* 外形
mutilate ['mju:tiˌleit] *v.* 毁坏

blade [bleid] *n.* 刀身，刀片
initial [i'niʃəl] *a.* 最初的；开始的
friable ['fraiəbəl] *a.* 易碎的

牙龈切除术常规

牙龈切除术的目的是消除牙周袋的软组织壁，并创造一种形态学的条件，使适当的口腔卫生措施得以实行。这种手术的基本原理，来自对发生在牙周袋内病理变化的理解。

牙龈切除术是外科手术，必须按照外科原则施行。术前准备包括去除刺激性沉积物。这至少能促使炎症部分缓解，而且将减少手术中出血倾向及改善手术后的组织反应。

术前病人如有顾虑，应努力设法消除这种恐惧。术前对患者进行解释常属必要，麻醉要适当，使用的全部器械必须彻底消毒。提倡用橡皮手套，病人要披无菌洞巾和毛巾。吸引器是有用的辅助装置，以保持术者视野清楚。

成套设备的组成如下：

牙龈刀，远中面用的特殊龈刀,镰刮，锄刮，锉，刮匙，探针，牙周袋刻度探针，止血钳，组织镊，剪刀，纱布，特别剪成的小三角形的敷料或棉花球，肾上腺素，局部麻醉药，小注射器，喷吸器，蜡纸垫，调刀和上敷料器械，丁香油氧化锌敷料，特殊器械(牙间隙锉，匙)，刮匙。

注射前用局部麻醉。针头要细而短(28～30 号)。建议用短注射器，特别在小范围或在口腔的一个区域使用时。

采用阻滞麻醉或浸润麻醉取决于治疗的区域。首先选用浸润麻醉法，因为它可同时减少出血。用常规浓度的麻醉剂进行浸润麻醉能使手术时无痛，不论手术涉及牙龈或其下的骨质时都是如此。但就牙根面磨光来说，并不是每一次都是无痛的，此时可能需要浓度较强的牙髓麻醉剂。所以在牙颈过敏病例中可用含 1:50000 肾上腺素的强力局部麻醉剂作传导麻醉，还可加上少量浸润，以达到最大麻醉效能，并取得良好的血管收缩。

恰当的局部麻醉能保证完全无痛并把术后疼痛减到最低程度。在正确部位麻醉剂用得越少，则术后疼痛也越轻。如存在深牙周袋，注射一滴麻醉剂到龈乳头内可保证获得满意的麻醉效果。对需要作阻滞麻醉的病例，例如，需作上颌牙舌侧阻滞麻醉时，注射 0.5cc 麻醉剂到腭大孔区，即能麻醉上颌磨牙及前磨牙的腭侧龈面。在门齿孔区注射可麻醉切牙舌侧牙龈。

切口应与牙周袋深度一致。切口的斜面要保证术后有生理外形。手术刀应非常锐

利，以期在做切口时组织不致残损。刀口要薄得能够很容易地进入组织，特别是在邻面间隙。切口一开始就应将牙龈完全切透，切口末端应尽可能接近袋底。斜面应该正确，因为即使用锐利的刀也难以再做第二次切口。特别是当组织有炎症及容易破碎时更是如此。

在去除被切断的组织后，牙间隙内用小三角形多孔纱布或棉球蘸 1:1000 肾上腺素塞紧。通常可在 3~5 分钟内止血。任何原先未被去除的牙石在此时应予去尽。多孔纱布去除以后，要立即放置丁香油氧化锌敷料。

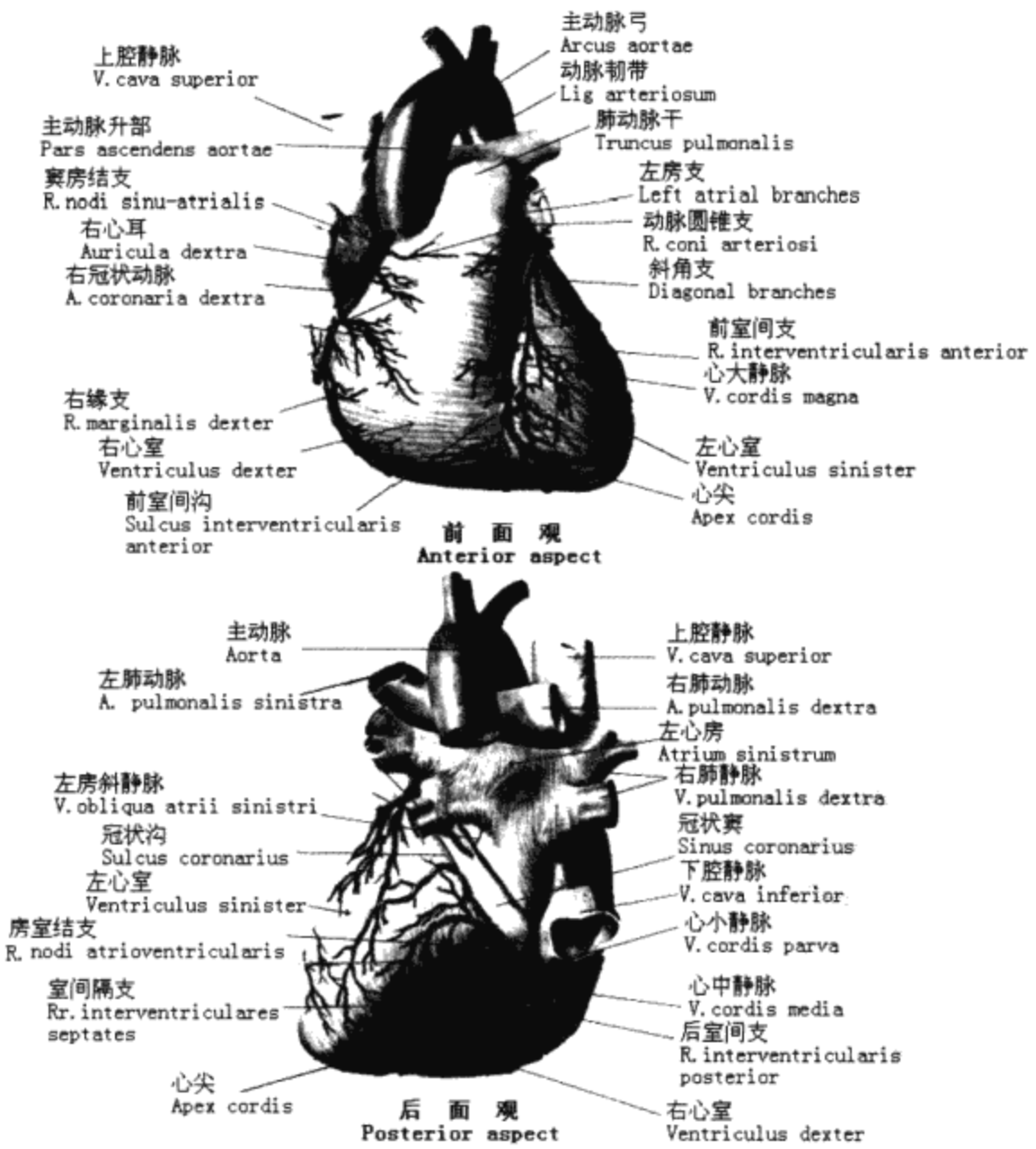
Answer the questions

1. How many parts does the vascular system have?
2. What are the main differences between the vascular system and the lymph vascular system?
3. Make a description of the process of the exchange of materials.
4. What is the meaning of the “blind lymphatic capillaries”?

Unit Five

Text A The Heart

The heart is a hollow muscular organ lying with its center a little to the left of the mid-line of the chest. The muscle of the greater part of the heart is very thick and forms thick bands, which are interlaced with one another and twisted into rings, loops, and whorls to form very strong walls.



心脏的外形和血管

External features and blood vessels of the heart

The heart is divided into a right and a left half by a vertical wall of muscle. Each half is again divided into an upper and lower quarter by a horizontal partition. The upper chambers are called auricles—right and left. The lower ones are called ventricles—right and left.

The two sides of the heart are completely separated, that is, the chambers of the right side are separated from their companions on the left by the vertical wall of flesh mentioned above; but the auricle and the ventricle of the same side open into each other. This opening is guarded by valves.

The right auricle receives blood from the great veins (superior and inferior venae cavae), which drain the blood from the head, neck, and arms above and from the trunk and legs below. The right ventricle pumps blood into the lungs; the left auricle receives blood from the lungs; the left ventricle pumps its contents into the great artery or aorta. This artery gives off branches, which in turn rebranch, like the limbs and twigs of a tree, to convey the blood to all parts of the body. Thus, in reality, there are two circulations, a greater, or systemic, through the body as a whole, and a lesser, or pulmonary, through the lungs. The heart serves as a two-cylinder pump situated between and connecting the two systems.

The systemic circulation serves to carry oxygen and food materials for distribution to all parts of the body and to remove carbon dioxide and the waste products of metabolism from the tissues. The pulmonay circulation is for the purpose of "ventilating" the blood—that is, for the elimination of carbon dioxide into the air of the lungs and the absorption of oxygen.

The ventricles make up the greater part of the heart. They have thick walls, the muscle of the left ventricle being thicker than that of the right chamber since it has more work to do. The walls of the auricles are comparatively thin. The ventricle muscle consists of numerous stout bundles which are arranged more or less concentrically so that when they contract, the ventricular cavity is almost obliterated and the blood expelled.

Word List

hollow ['hɔləu] *a.* 中空的
mid-line [mid'lain] *n.* 中线
band [bænd] *n.* 带
interlace [ˌintə'leis] *v.* 交织
twist [twist] *v.* 扭
loop [lu:p] *n.* 圈

whorl [hwə:l] *n.* 螺环
vertical ['və:tikəl] *a.* 垂直的
horizontal [ˌhɔri'zɔntəl] *a.* 水平的，横的
partition [pɑ:'tiʃən] *n.* 隔障，分隔
chamber ['tʃeimbə] *n.* 室
auricle ['ɔ:rikl] *n.* 心房，心耳
ventricle ['ventrikl] *n.* 心室
companion [kəm'pænjən] *n.* 伙伴
valve [vælv] *n.* 瓣
superior vena cava 上腔静脉
inferior vena cava 下腔静脉
aorta [ei'ɔ:tə] *n.* 主动脉
rebranch ['ri:'brɑ:ntʃ] *v.* 再分支
twig [twig] *n.* 小枝
lesser ['lesə] *a.* 较小的
pulmonary ['pʌlməneri:] *a.* 肺的
two-cylinder *a.* 二个圆柱的
ventilate ['ventileit] *v.* 通气，换气
elimination [iˌlimi'neiʃən] *n.* 排除
stout [staut] *a.* 坚固的
bundle ['bʌndl] *n.* 束
concentrically [kɔn'sentrikəli] *ad.* 同心地，集中地
ventricular [ven'trikjulə] *a.* 室的
obliterate [ə'blitəreit] *v.* 消灭
expel [iks'pel] *v.* 放出，逐出

Text B Ultrasonic Scaling

Ultrasonic dental equipment was first used for cavity preparation, and shortly, following its introduction, a series of reports confirmed the potential of such equipment to produce disturbance of amelogenesis, severe pulp changes and alterations in dentine formation. The ultrasonic scaler was produced in the U.S.A. and it is now fairly widely used in dental schools and to an increasing extent in general practice. The original Cavitron30 unit has been superseded by the Cavitron700, a much smaller, but essentially similar, machine. The handpiece consists of a stack of ferromagnetic metal which changes in size due to magnetoconstriction, induced by the magnetizing effect

of an alternating electric current. A 25 kilocycle current is converted through the handpiece to 25,000 mechanical strokes per second, the working point moving through approximately 1/1000 of an inch with each stroke. The tip action is thus neither radiant nor electrical, but mechanical in action. The most generally useful shape of working point is the curette type.

Water is passed through the handpiece for cooling purposes, and to contribute to the scaling procedure. The water emerges from the handpiece as a fine jet, which on striking the vibrating tip is converted into a spray of fine bubbles. The scaling action of the instrument is a combination of the mechanical action of the tip, and the effects of the formation and violent collapse of small bubbles, the cavitation effect. Apart from the mechanical cleansing action, cavitation is associated with complex physical, chemical and biological phenomena, the significance of which is by no means fully understood. In principle, cavitation may be associated with local pressures of thousands of atmospheres, local temperatures of hundreds of degrees, and local oxidative changes. The potential of this instrument to reduce gingival inflammation results from the mechanical action of the tip and the mechanical cleansing and biologic effects of cavitation.

A number of investigators have reported favourably on the results of ultrasonic scaling, and they have found no adverse effects on the tissue of the periodontium. Ultrasonic curettage is an effective method of debridement of the soft tissue walls of periodontals pockets, and histological studies of tissue excised after curettage have shown that healing occurs by epithelialization of the sulcular surface and resolution of inflammation in the gingival corium. Experience with the Cavitron over a number of years confirms the finding that the ultrasonic technique is equally as effective as conventional hand instrumentation in calculus removal, but less effective in stain removal, and the instrument does not remove entirely the need for hand instrumentation. There has been some dispute as to whether scaling by the ultrasonic technique is more rapid than hand instrumentation, although no report has suggested that it is less rapid in the hands of an experienced operator, a saving in time of 20 per cent has been reported, but it should be stressed that speed is by no means the only advantage of the ultrasonic technique. There is no doubt at present that this machine is a valuable addition to the armamentarium of the periodontist, and it has the potential to contribute largely to the reduction of acute and chronic inflammation during the hygiene phase.

Word List

potential [pə'tenʃəl] *n.* 潜能；潜力
amelogenesis [æməlɔ'dʒenisis] *n.* 釉质发生
Cavitron ['kævitrɔn] *n.* 机器名称
supersede [ˌsju:pə'si:d] *v.* 代替，取代
handpiece ['hændpi:s] *n.* 手机
stack [stæk] *n.* 迭式存储器
ferromagnetic [ˌferəumæg'netik] *a.* 磁性铁的
magnetoconstriction [mægˌni:təukən'strikʃən] *n.* 磁性伸缩
magnetize ['mægnitaiz] *v.* 使磁化
electric [i'lektrik] *a.* 电的
current ['kʌrənt] *n.* 流
kilocycle ['kiləusaikl] *n.* 千周，千赫
approximately [ə'prɔksimitli] *ad.* 近似，大约
radiant ['reidiənt] *a.* 辐射的，放射的
electrical [i'lektrikəl] *a.* 电的
contribute [kən'tribjut] *v.* 起一份作用,贡献
emerge [i'mə:dʒ] *v.* 出现；冒出
jet [dʒet] *n.* 喷射
vibrate [vai'breit] *v.* 使振动，使震动
convert [kən'və:t] *v.* 转变，变换
bubble ['bʌbl] *n.* 泡；水泡；气泡
violent ['vaiələnt] *a.* 猛烈的，激烈的
collapse [kə'læps] *n.* 崩溃；虚脱
phenomenon [fi'nɔminən] (*pl.* phenomena [fi'nɔminə]) *n.* 现象
significance [sigˈnifikəns] *n.* 意义
principle ['prinsəpl] *n.* 原则
atmosphere ['ætməsfiə] *n.* 大气；大气压
investigator [in'vesti,geitə] *n.* 调查研究者
favourably ['feivərəbli] *ad.* 有利地；顺利地
adverse ['ædvə:s] *a.* 有害的；不利的；相反的
curettage [kju'retidʒ] 刮除术
debridement [de'bridmənt] *n.* 清创术
periodontal [ˌperiəu'dɔntl] *a.* 牙周的
histological [hi'stɔlədʒi:kəl] *a.* 组织学的

excise [ek'saiz] *n.* 切除
epithelialization [ˌepi'θi:liəli'zeiʃən] *n.* 上皮形成
sulcular [ˌsʌl'kju:lə] *a.* 小沟的
resolution [ˌrezə'lu:ʃən] *n.* 消散；分解；解决
corium ['kɔ:riəm] *n.* 真皮
conventional [kən'venʃənl] *a.* 常规的，惯例的
stain [stein] *n.* 色斑；污点
dispute [dis'pju:t] *n.* 争论

超声波洁治

超声波牙科设备最初应用于窝洞制备，应用后不久，一系列报告证实这种设备可能引起釉质发育的障碍、严重的牙髓改变和牙本质形成的改变。超声波洁牙机由美国首创，目前，在牙科学界已被十分广泛地采用，且临床使用的范围也在不断增加。原始的 Cavitron 30 型超声机已被更为细巧、但本质相同的 Cavitron 700 型所代替。该器械的手机部分是由一个铁磁性金属迭层所组成，铁磁金属由于磁伸缩而改变其大小，而磁伸缩效应是由交流电的磁化作用所引起的。25 千周的交流电通过手机转换成每秒钟 25000 次机械震动，工作端在每一次震动的移动大约为 0.001 英寸。工作端既无辐射，又不导电，只是产生机械作用。最普遍应用的工作端的外形是刮匙式的。

通过手机的水是为了达到冷却的目的，同时也对洁治起作用。手机的水犹如细流冒出，撞在震动的工作端上转变为喷雾状的细沫。该仪器的洁治效果，是由工作端的机械作用、细沫的形成和强烈的击溃作用，即空化作用结合起来所产生的。除了机械的清洁作用以外，空化作用是与复杂的物理学的、化学的、生物学的现象相联系的，空化作用的意义尚未能完全了解。原则上，空化作用可使局部产生数千个大气压力，局部温度达数百度，局部氧化作用改变。由于工作端的机械效应以及空化作用的机械清除和生物学效应，该仪器有减轻牙龈炎症的效能。

许多研究者的报告对超声波洁治的效果作出了好评，他们发现其对牙周组织并无有害作用。超声波刮治术是一种清扫牙周袋软组织壁的有效方法，在刮治后的组织学研究指出：龈沟表面由于上皮形成而愈合，同时牙龈真皮内炎症得到消除。多年来应用 Cavitron 机的实践证实：超声波技术清除牙石的作用与常规的手持器械操作同样有效，但去除色斑的效能较差。超声波器械并不能完全取代手持器械。关于用超声波洁牙是否比手持器械操作更快的问题有所争论，但是没有提出过超声波洁牙速度较慢的报告。有报告说，超声波洁牙机在一个有经验的操作者手里可节省 20% 的时间，但是，应当强调的是，速度并不是超声波洁牙术的唯一的优点。目前，毋庸置疑的是，

给牙周病专家的医疗设备中增加一只超声波洁牙机是有价值的。在口腔卫生方面，超声波洁牙可能在减少急性、慢性炎症方面起相当大的作用。

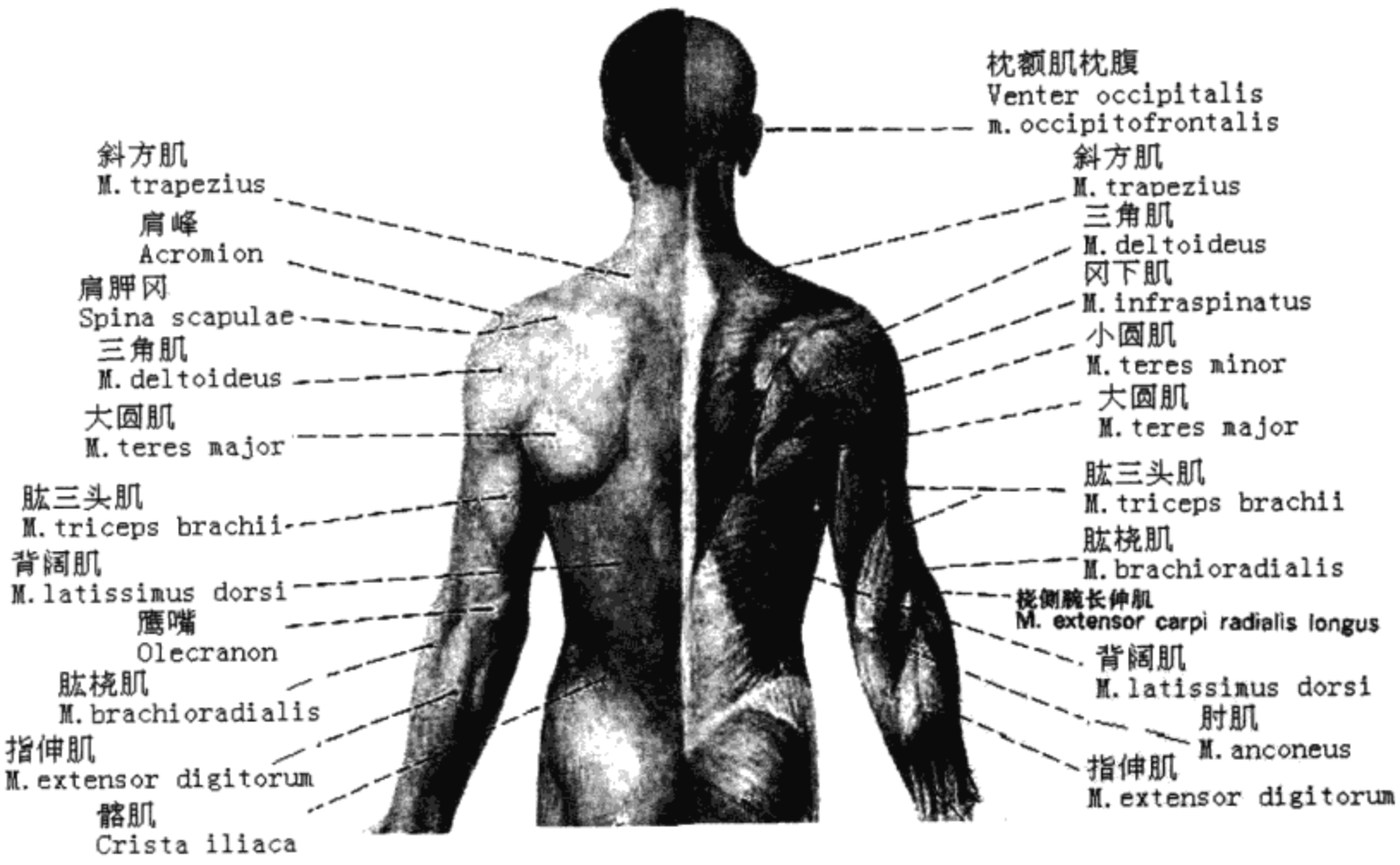
Answer the questions

1. Where is the heart located?
2. Why is the heart said to be a hollow muscular organ?
3. What are the valves for in the heart?
4. Make a description of the blood circulation in you own words.
5. The heart is always compared to “a muscular pump”.With the reference of the knowledge in Text A, how to exlpain this comparison?

Unit Six

Text A The Muscular System

The muscular system consists of large number of units known as muscles, which together make up the flesh of the body. The greater part of the substance of the limbs is composed of muscles, and the same is true of the back and the neck.



All muscles are capable of shortening or contraction, and it is by the contraction of groups of muscles that all movements of any part of the body are produced. In order that a muscle may exercise this function of producing movement, it is attached at both its extremities, and these attachments are usually to bones; when the muscle contracts, movement at a joint occurs. The attachment of a muscle to a bone occurs by means of

a fibrous structure known as a tendon, sometimes the tendon is so short that the muscle appears to be directly attached to the bone, but more often it is a definite cord-like or band-like structure. When a muscle is flat and sheet-like, its tendon is likewise flattened and sheet-like; such a tendon is termed as an aponeurosis. In many instances, definite impression can be seen on dried bones, indicating the areas of attachment of particular muscles.

Although muscles are as a general rule attached to bones, this is not always the case; for example, a number of small muscles in the face are attached by one end to bone and by the other end to the skin; by their contraction they produce changes in facial expression, and they are in fact known collectively as the muscles of expression. Again, the muscles of the tongue are attached at one end to bone, and at the other end to the mucous membrane covering the organ.

Word List

flesh [fleʃ] *n.* 肉
limb [lim] *n.* 肢体(手足)
exercise ['eksəsaiz] *v.* 行使
extremity [ik'stremti] *n.* 末端
attachment [ə'tætʃmənt] *n.* 附着
definite ['definit] *a.* 一定的，明确的
cord-like *a.* 索样的
band-like *a.* 带样的
sheet-like *a.* 板祥的
likewise ['laikwaiz] *ad.* 同样
flatten ['flætn] *v.* 变平
aponeurosis [ˌæpəunjuə'rəusis] *n.* 腱膜
impression [im'preʃən] *n.* 压迹，痕迹
indicate ['indikeit] *v.* 指出
particular [pə'tikjulə] *a.* 特殊的
case [keis] *n.* 情况
collectively [kə'lektivli] *ad.* 集合，共同

Text B A Report on Acupuncture Anesthesia in Oro-Maxillo-Facial Operations

In the recent 10 years, we have performed 1,802 oro-maxillo-facial operations, using acupuncture anesthesia (selecting distal points according to the course of the channels and retaining the needles after "deqi", i.e., the normal reaction to acupuncture is achieved) with a success rate of 92.43% (1662/1802) and a failure rate of 7.57% (136/1802). 73.68% cases (1328/1802) had excellent analgesic effect.

In this paper, we will analyses the impact of the following factors on the analgesic effect of acupuncture anesthesia: the sex and age of the patient, the prescription of points, the method of needle stimulation, the duration of operation, the operative site and the forming of anesthetists and the surgical team. And it discusses the following questions:

1. "Deqi" (the normal reaction to acupuncture) is the key to success of acupuncture anesthesia. But there are different opinions about how to keep it. Most authors in our country believe that it requires an uninterrupted needle stimulation of different degrees of intensity. Hence the adoption of the pulse electric stimulation method in most clinics. However, our data show that once "deqi" is achieved, the retaining of needles, without any electric or hand stimulation, can provide sufficient amount of stimulation for an oro-maxillo-facial operation.

Experimental studies in which convergent light was focused on the rabbit nose for a pain test showed that the analgesic time was 24.4 seconds in the retaining needle group. As compared to 13 seconds in the control group, the 190% prolongation of analgesic time is statistically significant ($p<0.05$). This clearly testifies to the prolonged analgesic effect of simple needle retaining after "deqi" is achieved. Furthermore, it seems to show more precisely the role of acupuncture in anesthesia by excluding the cooperative analgesic effect of electric stimulation.

2. There are two schools about the principle of acupuncture anesthesia: the nerve segment theory and the Jing-Luo (channels and collaterals) theory. We are partisans of the second school, the conception of which is supported by the following data of ours:

a. In 1779 (98.7%) of our 1802 cases, we selected distal points according to the course of channels, with a success rate of 93.59% (1665/1779) and 74.09% cases (1318/1779) bad excellent analgesic effect. This fully testifies to the effectiveness of

the selection of distal points according to the course of channels.

b. In a case of temporo-mandibular arthroplasty for ankylosis, on inserting needles to points selected according to the course of channels, the patient immediately opened his mouth from 2 mm to 35 mm in width, thus avoiding a surgical operation.

c. Sodium Iodide 125 isotopic scanning on sensation-conduction study of Jing-Luo (channels and collaterals) showed high uptake of sodium Iodide 125 on pericardium channel pathway points of a patient perfectly amenable to acupuncture anesthesia.

All these data proved the objective existence of Jing-Luo phenomenon, though its morphological aspect has not been completely understood up to now.

3. Individual variability of analgesic effect: It is generally agreed that the older the patient, the more favorable the analgesic effect. The analgesic effect is comparatively more reliable in soft tissue operations than in bony structure operations.

The operative site, the type and extent of operation, the technical complexity and the operation time are all determinant factors on the analgesic effect.

4.Incompleteness of total analgesia: This is the key problem waiting for resolution. Skilled anesthetists and a trained surgical team have achieved a higher success rate. This shows that the mastery of some special skills might compensate this disadvantage to some extent.

5. Advantages of acupuncture anesthesia in oro-maxillofacial operations: It is a safe method with reduced embarrassment of physiological functions which promotes early recovery. Special interest is paid to plastic surgery where tissue deformity caused by local anesthesia can be lessened.

Owing to the incompleteness of total analgesia and the undue stretching reaction, acupuncture anesthesia is now used only in medium-sized operations such as parotidectomy excision of sub-maxillary gland, temporo-mandibular arthroplasty and bucco-labial operations. It can also be used in unilateral radical neck dissection in selected patients.

Word List

analysis [ə'næləsis] *n.* 分析
select [si'lekt] *v.* 选择，挑选
impact ['impækt] *n.* 效果，影响
analgesic [ˌænəl'dʒi:sik] *a.* 痛觉缺失的，止痛的
key [ki:] *n.* 关键
uninterrupt [ʌnˌintə'rʌpt] *v.* 不间断，连续

stimulation [ˌstimju'leiʃən] *n.* 刺激
intensity [in'tensiti] *n.* 强度
adoption [ə'dɔpʃən] *n.* 采用
convergent [kən'və:dʒənt] light 聚光灯
focus ['fəukəs] *n.* 焦点；*v.* 聚焦
prolongation [ˌprəulɔŋ'geiʃən] *n.* 延长，拉长
statistically [stə'tistikəli] *ad.* 统计地，统计学上
testify ['testifai] *v.* 证明；证实
exclude [iks'klu:d] *v.* 排斥，把……排除在外
partisan [ˌpɑ:ti'zæn] *n.* 支持者
conception [kən'sepʃən] *n.* 概念
temporo-mandibular [mæn'dibjulə] *a.* 颞下颌的
arthroplasty ['ɑ:θrəˌplæsti] *n.* 关节成形术
ankylosis [ˌæŋki'ləusis] *n.* 关节强直
width [widθ] *n.* 宽度
sodium ['səʊdi:əm] *n.* 碘化钠
isotopic [aisəu'tɔpik] *a.* 同位素的
scan [skæn] *v.* 扫描
collateral [kə'lætərəl] *a.* 侧枝
pericardium [ˌperi'kɑ:djəm] *n.* 心包
amenable [ə'menəbəl] *a.* 顺从的
existence [ig'zistəns] *n.* 实体，存在
aspect ['æspekt] *n.* 方面，面貌
complexity [kəm'pleksiti] *n.* 复杂(性)
determinant [di'tə:minənt] *a.* 决定性的
incompleteness [ˌinkəm'pli:tˌnis] *n.* 不完全
mastery ['mɑ:stəri] *n.* 掌握
compensate ['kɔmpenseit] *v.* 补偿
disadvantage [ˌdisəd'vɑ:ntidʒ] *n.* 不利
embarrassment [em'bærəsmənt] *n.* 妨碍，麻烦，窘迫
undue [ʌn'dju:] *a.* 过度的，过分的，不适当的
parotidectomy [pəˌrɔti'dektəmi] *n.* 腮腺切除术
unilateral ['ju:nə'lætərəl] *a.* 单边的，一方的
radical ['rædikəl] *a.* 根本的，根的

一篇关于口腔颌面手术针灸麻醉的报告

在最近的十年里，我们采用针刺麻醉(选用循经远端取穴法和得气针刺生效的正常反应—留针)，已经施行口腔颌面外科手术 1802 例，其中成功率 92.43%(1662/1802)，失败率 7.57%(136/1802)，优良(镇痛)率 73.68%(1328/1802)。

本文分析了影响针刺麻醉镇痛效果的因素：病人的年龄和性别、穴位的配方，针刺激方法，手术持续时间、手术部位、麻醉人员和手术人员的组成，并就以下问题进行了讨论。

1. “得气”(针刺正常反应)是针刺麻醉成功的关键。但如何保持得气则有不同的看法。我国大部分学者认为应持续给以不同强度的刺激量。因而大部分单位临床采用电脉冲刺激法。而我们的资料证明，一旦“得气”后，只要留针，无需任何电刺激或手法刺激，就能达到口腔颌面外科手术的刺激量。

采用聚光灯焦点照兔鼻测痛法的实验研究，发现留针组无痛时间为 24.4 秒，对照组的 13 秒比较，延长了无痛时间 190%，这具有统计学意义($P<0.05$)。这很清楚地说明“得气”后单纯的留针有镇痛的持续效应。此外，由于排除了电刺激的协同镇痛作用，针刺对麻醉的作用似能更精确地显示出来。

2. 对针刺麻醉的原理有两种学派：神经节段学说和经络学说。我们属于第二种学派，并以下列资料支持这种观念：

A. 我们在 1802 例中有 1779(98.7%)例选用了循经远端取穴法，成功率为 93.59%(1665/1779)，优良率为 74.09%(1318/1779)。这充分证明选用循经远端取穴法的有效性。

B. 在一例颞下颌关节强直需作关节成形术的病例中，按循经远端取穴法，病人立即将口从 2 毫米张到 35 毫米，从而避免了外科手术。

C. 用碘化钠 125 同位素扫描法对经络传感进行研究，在一个十分信服针麻的病人身上发现，其心包经上的穴位积累了大量的碘化钠 125。

所有这些资料证明，虽然经络的形态外观迄今尚不知道，但经络现象是客观存在的。

3. 镇痛效果的个体差异，一般认为病人年龄越大镇痛效果越好。软组织手术的镇痛效果比骨结构手术好。

手术部位、类型、范围、技术的复杂性、手术持续时间都影响镇痛效果。

4. 镇痛不全：这是有待解决的关键问题。熟练的麻醉师和训练有素的外科手术人员能取得较高的成功率。这说明掌握某些特殊技能，在一定程度上可以弥补这一不利因素。

5. 口腔颌面外科采用针刺麻醉的优越性：这是一种安全的方法，它促进早期愈合，减少生理功能紊乱，可以减轻局部麻醉所造成的组织畸形，对整复外科特别有利。

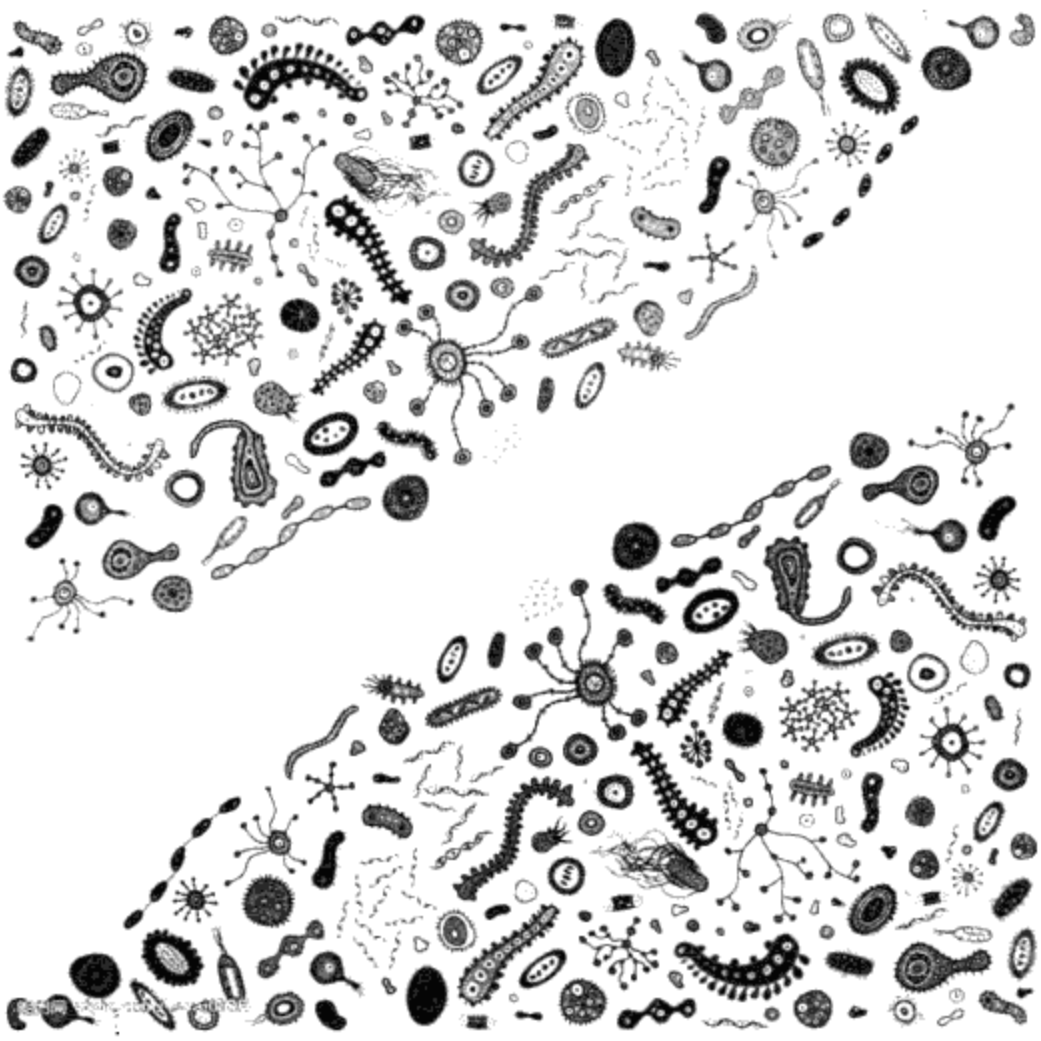
由于镇痛不全及过分的牵拉反应，针麻目前仅应用于中型手术，例如腮腺切除术、颌下腺切除术、颞下颌关节成形术以及颊唇手术，也能选择性地应用于单侧颈清手术病例。

Answer the questions

1. How is the muscular system formed?
2. What is the main function of muscles?
3. How is the movement of any part of the body produced?
4. What is a tendon? What is its usage?
5. Is it true that muscles are always attatched to bones? Why?

Unit Seven

Text A Infection and Resistance



Normally many bacteria are present in and on the human body. In their natural habitat, provided the tissues are healthy, they are harmless. If these ordinarily innocuous germs are brought to a foreign locality of the body, they may become extremely dangerous. For example, colon bacilli are present in extravagant numbers in the human intestine. They serve a useful purpose there, that of decomposing organic matter. If they should pass the barrier of the intestinal wall and enter the abdominal cavity, they would set up a grave peritonitis. The mouth and nose ordinarily harbour many different types of germs that are harmless under natural conditions. Should the healthy structure of these tissues be altered, the organisms may become dangerous invaders. The skin, when intact, capably resist myriads of bacteria that live on it. Once the skin is broken or injured, however, invasion may be rapid.

The invasion of the body by disease-causing organisms does not always lead to the development of an infection. By means of various defense mechanisms, and because

of the presence of certain inhibiting factors, invading organisms may be completely destroyed before they can gain a foothold. The body is then said to be resistant. Resistance is only relative. It may be present to a marked degree, when it is termed as immunity, or it may be so negligible that disease develops. Between these extreme states lies a middle ground in which a specific disease may be sufficiently modified in its severity to cause only a minimal reaction in the invaded individual.

Word List

habitat ['hæbitæt] *n.* 习生地，产地
provided [prə'vaidid] *conj.* 倘若，以……为条件
innocuous [i'nɔkju:əs] *a.* 无害的，无毒的
foreign ['fɔrin] *a.* 在外部的
colon ['kəulən] *n.* 结肠
bacillus [bə'siləs] *n.* (*pl.* bacilli [bə'silai]) 杆菌
extravagant [iks'trævigənt] *a.* 过度的，无节制的
purpose ['pə:pəs] *n.* 用途
decompose [ˌdi:kəm'pəʊz] *v.* 分解
organic matter 有机物
barrier ['bæriə] *n.* 障碍
peritonitis [ˌperitə'naitis] *n.* 腹膜炎
ordinarily [ɔ:dn'eərəli] *ad.* 通常，普通
harbour ['hɑ:bə] *v.* 窝藏，隐匿
alter ['ɔ:ltə] *v.* 改变，变更
intact [in'tækt] *a.* 无伤损的，完整的
capable ['keipəbl] *ad.* 好，妙，有能力地
invasion [in'veiʒən] *n.* 侵入
defense [di'fens] *n.* 防御，保卫
inhibit [in'hibit] *v.* 抑制
invade [in'veid] *v.* 侵入
foothold ['fʊtˌhəʊld] *n.* 立足点
resistant [ri'zistənt] *a.* 抵抗的
marked [mɑ:kt] *a.* 显著的，著名的
term [tə:m] *v.* 把……叫做
immunity [i'mju:niti:] *n.* 免疫
negligible ['neglidʒəbl] *a.* 可以忽视的，很小的

extreme ［iks'tri:m］ *a.* 极端的
ground ［graund］ *n.* 地域，范围
specific ［spi'sifik］ *a.* 特殊的，专门的，
modify ［'mɔdifai］ *v.* 轻，缓和
severity ［sə'veriti］ *n.* 严重，厉害
minimal ［'miniməl］ *a.* 最小(限度)的，极微的
reaction ［ri'ækʃən］ *n.* 反应

Text B The Prevention of Malocclusion

We have seen that, on the whole, the main aetiological factors in malocclusion seem to be inherited. The skeletal pattern of the jaws, the form of the oral musculatures and the size of the dentition are all governed largely by genetic factors. Most of the localized factors, such as supernumeray teeth and hypodontia, probably have an inherited background. Primary prevention or modification of these features is therefore hardly possible. Even these few aetiological factors which are the result of the environment, such as trauma are not really preventable, with the exception of early loss of primary teeth. Early loss of teeth could be prevented, but we have seen that this is not a primary cause of malocclusion, but merely aggravates crowding problems in certain conditions. Primary prevention of malocclusion by modification of its aetiological factors is therefore not practicable in most patients, in the present state of knowledge. There is always likely to be the need for corrective treatment.

Secondary prevention is, however, of practical importance in orthodontics. Two aspects of secondary prevention can be outlined.

(a) The prevention of the basic aetiological features producing their maximum adverse effect. This applies mostly to localized factors, and can be illustrated with reference to the tuberculate supernumerary tooth. If such a tooth is left in place for several years, the eruption of the permanent upper central incisor is delayed. The adjacent teeth are likely to encroach on the space, and much more severe occlusal problem results, which could have been prevented by removing the supermumerary tooth earlier.

(b) The prevention of factors which make an established malocclusion more difficult to correct. Perhaps the prime example of this is the illtime extraction of teeth. We have seen that treatment has been made more difficult by removal of the upper first

permanent molars, allowing the second molars to move forward into the spaces.

Thus, while primary prevention of malocclusion is unrealistic, secondary prevention can help to avoid malocclusion or reduce the need for treatment in some cases. The key to prevention of this kind is awareness. The early assessment of the child, followed by regular review, and treatment at the appropriate time if necessary, will do much to reduce malocclusion.

Word List

orthodontics [ˌɔ:θə'dɔntiks] *n.* 正畸学，正牙学
malocclusion [mælə'klu:ʒən] *n.* 错位咬合
aetiological [ˌi:tiə'lɔdʒikəl] *a.* 病原的，病因的
inherit [in'herit] *v.* 继承
musculature ['mʌskjulətʃə] *n.* 肌，肌织，肌系
govern ['gʌvən] *v.* 支配；统治
genetic [dʒi'netik] *a.* 遗传学的
hypodontia [ˌhaipəu'dɔnʃiə] *n.* 牙发育不全
preventable [pri'ventəbl] *a.* 可预防的
aggravate ['ægrəveit] *v.* 加重，使恶化
maximum ['mæksiməm] *n.* 最大量
adverse ['ædvə:s] *a.* 不利的，有害的
tuberculate [tju:'bə:kjulit] *a.* 有结节的，结节状的
encroach [en'krəʊtʃ] *v.* 侵占
illtimed ['iltaimd] *a.* 不适时的
unrealistic ['ʌnri:ə'listik] *a.* 不现实的，与现实不符的
awareness [ə' wɛənis] *n.* 意识到，知道
assessment [ə'sesmənt] *n.* 估价，评价

错𬌗的预防

我们已了解到，总的来说，错𬌗的主要病源学因素是遗传。颌的骨骼型、口腔肌肉的形态和牙列的大小，大部分都受遗传因子支配。许多局部的因素，诸如多生牙和牙发育不全，或许都有遗传的背景。因此，对这些特征的原发因素的预防和改变，几乎是不大可能的。甚至一些由环境而造成的病源因素，如创伤，也不能真正加以预防；

而乳牙早失则例外，它是可以预防的。但我们知道这不是错𬌗的一个原发病因，只不过是在某种条件下它会加重牙的拥挤情况。按照目前的认识水平，在许多病人中依靠改变病源学因素从根本上预防错𬌗是不实际的，而总是需要靠矫正治疗来解决。

可是，一般性预防在正畸学中仍是重要的。它可概括为两个方面。

(a)防止产生最不利影响的基本致病因素。这主要是指那些局部因素，如结节状的多生牙。如果让这种牙占位数年，上中恒切牙的萌出就会延迟，而相邻的牙可能会占去位置，从而产生更严重的咬𬌗问题。早期拔除多生牙，这些问题都可得到预防。

(b)预防使已有的错𬌗会变得更加难治的那些因素，或许这方面最好的例子是不合时宜地拔牙。我们已看到过由于第一恒磨牙被拔掉，使第二恒磨牙向前进入了间隙，如此，使治疗更为困难。

因此，虽然错𬌗的根本性预防是不现实的，但一般性预防能避免形成错𬌗，或者在一些病例中减少了治疗的需要。对这种病预防的关键是发现它，对儿童及早检查，继之以定期复查，如果必要则适时给予治疗。这样，就会大大减少错𬌗。

Answer the questions

1. What is the meaning of "natural habitat"?
2. In what case the ordinarily innocuous germs can become dangerous?
3. "The invasion of the body by disease-causing organisms does not always lead to the development of an infection." Why is it?
4. How is the body said to be resistant?
5. What is the immunity?

Unit Eight

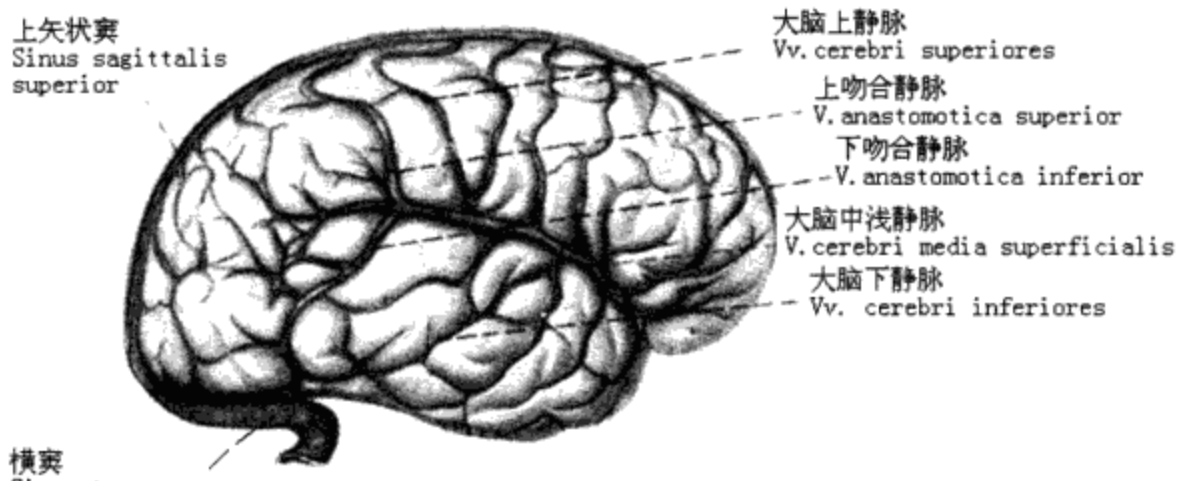
Text A Kinds of Blood Vessels

On the basis of function, blood vessels may be divided into three groups, as follows:

1. Arteries, which carry blood form ventricles out to the organs and other parts of the body.

2. Veins, which drain the tissues and the organs and return the blood to the heart.

3. Capillaries, which allow for exchanges between the blood and the body cells, or between the blood and the air in the lung tissues. The capillaries connect the smaller arteries and veins.



大脑半球外侧面的静脉
Veins of the lateral surface of cerebral hemisphere

Arteries and veins may both be subdivided into two groups or circuits:

1. Pulmonary vessels, which are related to the lungs. They include the pulmonary artery and its branches to the lungs, and the veins that drain the lung capillaries. The pulmonary arteries carry blood low in oxygen from the right ventricle, while the pulmonary veins carry oxygenated blood from the lungs into the left atrium. This circuit concerns itself with the elimination of carbon dioxide from the blood and replenishing its supply of oxygen.

2. Systemic arteries and veins, which are related to the rest of the body. This circuit is concerned with supplying food and oxygen to all the tissues of the body and in carrying away waste materials from the tissues for disposal.

Word List

vessel ['vesəl] *n.* 管，导管
blood vessel 血管
functional ['fʌŋkʃənəl] *a.* 官能的，机能的
classification [ˌklæsifi'keiʃən] *n.* 分类
basis ['beisis] *n.* (*pl.* bases ['beisiz]) 基础，根据
artery ['ɑ:təri] *n.* 动脉
ventricle ['ventrikl] *n.* 室，心室
drain [drein] *v.* 引流，回流
capillary ['kæpəˌleri] *n.* 毛细血管
subdivide ['sʌbdi'vaid] *v.* 再分
circuit ['sə:kit] *n.* 环行，线路
relate [ri'leit] *v.* 有关
oxygenate ['ɔksidʒineit] *v.* 充氧气，氧化
atrium ['eitriəm] (*pl.* atria ['eitriə]) *n.* 心房
elimination [iˌlimi'neiʃən] *n.* 排除
replenish [ri'pleniʃ] *v.* 补充
systemic [sis'temik] *a.* 系统的，全身的
material [mə'tiəriəl] *n.* 物质，材料

Text B Oral Surgery for Dental Prosthesis (1)

Oral surgery for dental prosthesis includes those surgical operations in the oral cavity which are necessary in order that the artificial denture may have a firm base, free from marked osseous protuberances or undercuts, and devoid of interfering muscle attachments or excess mucoperiosteum. This includes the removal of both hard and soft tissues. It includes also those oral or extraoral operations which are indicated for the restoration of lost bone, teeth or the insertion of retentive devices for dentures.

Types of oral or extraoral prosthetic surgical procedures

I. Operations in the oral cavity. Operations in the oral cavity are concerned with (1) fibrous bands which interfere with the placing of a denture and with its retention and (2) osseous tissue abnormalities of the denture-bearing areas.

a) Abnormalities of soft tissues. The soft tissues which interfere most with the placing of dentures on the maxilla are the low insertion or hypertrophy of the labial frenum, and the low areas of origin or hypertrophy of the depressor septi, incisivus labii superioris (superior incisal), nasalis (nasal), alar part, and the buccinators (buccinator or cheek) muscles. Hyperplasias in the labial or buccal sulci or on the crest of the ridges or palate are frequently seen in patients who have worn poorly fitting dentures for many years.

On the mandible, interference to satisfactory denture construction will result from the high origin or hypertrophy of the lingual frenum and of the genioglossus, mentalis, incisivus labii inferioris and buccinatoris muscle.

Theses abnormalities can be corrected by surgical procedures, such as frenectomy, repositioning of depressor septi muscle, ankylotomy for ankyloglossia, deepening the labial sulcus and excision of hyperplastic tissue form crests of maxilla and mandibular ridges.

b) Abnormalities of osseous fissue. Among the many bony prominences called exostoses torus palatinus in the median raphe of the palate is most common. Bony projections at the lingual aspect of the lower jaw (torus mandibularis) and abnormal prominence of the tuberosity of the maxilla are not infrequent. None of these conditions is pathological. The patient is rarely conscious of them, and even a large torus palatinus overhanging the center of the palate seldom causes the patient to complain, but, when circumstances oblige a patient to use artificial dentures, the presence of such condition will occasion distinct mechanical difficulties.

Minor defects of the contour of the alveolar ridges are often caused by injury inflicted on the alveolar bone and soft tissues during extraction of the teeth. Sharp bony spines and deep undercuts, especially in the uppermolar region, will result from failure to trim these projections at the time of extracting the teeth. It should be emphasized that greater care in handling mouth tissues during extraction of teeth will undoubtedly prevent many minor defects.

Many minor defects characterized by bony projections, such as exostoses and torus palatinus, are easily repaired by an incision over the area and retraction of the soft tissues until the prominence is well exposed. Its removal may be accomplished with rongeurs or chisels. The surface is then smoothened, and the wound closed with silk or

any similar sutures. Occasionally, it may be necessary to remove a part of the soft tissues where there is an over abundance.

Alveolectomy means the removal of the alveolar process from whether the maxilla or the mandible by surgical means. However, the alveolar process is not completely removed, just that portion of the alveolar process that will prepare the ridges for the reception of artificial dentures is removed. Thus alveolectomy consists in the incision and reflection of the covering mucoperiosteum and the surgical removal of part of the alveolar process after the extraction of teeth.

II. Extraoral operations. Extraoral operations include (a) surgery to correct prognathia or micrognathia of the mandible or maxilla; (b) insertion of bone grafts, metal or acrylic implants to replace bone loss due to disease or trauma and surgery.

Implant dentures: implant denture is a metal implant with several poles which is placed on the alveolar bone. These poles are projected through the gingival in the mouth to hold the dentures. The implant denture is used for the patient who has an atrophied aveolar ridge which can not wear a common artificial denture.

Magnetic implant: the retention of full dentures is aided by the implantation of tiny, powerful magnets in the jaw and in the denture. One magnet is placed in each side of the jaw and completely covered with mucoperiosteum; corresponding magnets are placed in the otherwise conventional full denture. The attraction between magnets are placed in jaw and the denture helps retain the denture in position.

Plantation of teeth. Plantation of teeth includes three procedures: replantation, transplantation, and implantation.

a. Replantation: replantation means the reinsertion of a tooth in the socket from which it has been removed purposely or by accident. The replant fits its socket perfectly and should enjoy a high degree of success.

b. Transplantation: transplantation means the insertion of a natural tooth into the socket of a recently extracted tooth. The autotransplant (a transplant from one place to another within the same mouth) enjoys a high success rate often with indefinite survival, by virtue of prompt transfer of the tooth to its new site. Autotransplantation's tooth is best performed when the root of the donor tooth is almost completely formed but its apices are still open. The most commonly used donor tooth for autotransplantation to first and second molar sites, is third molar. The allogenic tooth probably was the first transplanted human organ. Teeth have been transplanted for centuries. The tooth inserted may be an old reserved one which has been extracted for a long time, or it may be a freshly extracted tooth from another individual.

c. Implantation means the insertion of an artificial tooth into a new socket (non-

biologic replacement). Acceptable materials may be divided into four major categories, such as metals (titanium and vitallium); polymers; ceramics (aluminum oxide) ; and carbons.

Word List

prosthesis ['prɔsθisis] *n.* (*pl.* prosthises) 修复术，假体
undercut ['ʌndəkʌt] *n.* 倒凹
devoid [di'vɔid] *a.* 缺乏，没有
excess ['ekses] *a.* 过多的
mucoperiosteum [ˌmju:kəperi'ɔstiəm] *n.* 粘骨膜
retentive [ri'tentiv] *a.* 固位的，保持的
device [di'vais] *n.* 装置，器
prosthetic [prɔs'θetik] *a.* 修复术的
insertion [in'sɜ:ʃən] *n.* (肌肉的)附着
hypertrophy [hai'pə:trəfi] *n.* 肥大
frenum ['fri:nəm] (*pl.* frena ['fri:nə]) *n.* 系带
depressor [di'presə] *n.* 降肌
incisivus = incisive ['insaisivəs] *a.* 切牙的，切的
nasalis ['neizəlis] *a.* 鼻的，*n.* 鼻肌
alar ['eilə] *a.* 翼
buccinatoris ['bʌksineitəris] *a.* 颊肌的
buccinator ['bʌksineitə] *n.* 颊肌
sulcus ['sʌlkəs] (*pl.* sulci ['sʌlsai]) *n.* 沟
crest [krest] *n.* 脊突，嵴
genioglossus [ˌdʒi:niə'glɔsəs] *n.* 颏舌肌
mentalis [men'teilis] *n.* 颏肌
frenectomy [fri:'nektəmi] *n.* 系带切除术
reposition [ˌri:pə'ziʃən] *n.* 复位术
ankylotomy [ˌæŋki'lɔtəmi] *n.* 舌系带切开术
ankyloglossia [ˌænkilə'glɔsiə] *n.* 舌系带短缩，结舌
prominence ['prɔmənəns] *n.* 凸出物，突起
exostosis [eksɔs'təusis] (*pl.* exostoses [eksɔs'təusi:z]) *n.* 外生骨疣
torus ['tɔ:rəs] (*pl.* tori ['tɔ:rai]) *n.* 隆凸，圆枕
raphe ['reifi] *n.* 缝
contour ['kɔntʊə] *n.* 外形

inflict [in'flikt] *v.* 使遭受
trim [trim] *v.* 修整
rongeur [rəun'ʒə:] *n.* 咬骨钳，修骨钳
alveolectomy [ælviə'lektəmi] *n.* 牙槽缘切除术
prognathia [ˌprɔg'næθiə] *n.* 上颌前突
micrognathia [ˌmaikrəg'næθiə] *n.* 小颌
acrylic [ə'krilik] *a.* 丙烯酸的，丙烯酸酯
implant [im'plænt] *n.* 植入物(移植物)
atrophy ['ætrəfi:] *n.* 萎缩
magnetic [mæg'netik] *a.* 磁的，有磁性的
magnet ['mægnit] *n.* 磁铁
attraction [ə'trækʃən] *n.* 吸引力
replantation ['ri:plæn'teiʃən] *n.* 再植，重植
transplantion [ˌtrænsplæn'teiʃən] *n.* 移植
autotransplant [ˌɔ:təu'trænspla:nt] *n.* 自体移植物
donor ['dəʊnə] *n.* 供体
allogenic [ˌælə'dʒenik] *a.* 外源的，他生的
titanium [tai'teini:əm] *n.* 钛(22 号元素)
vitallium [vai'tæliəm] *n.* 活合金(钴铬钼合金)
polymer ['pɔləmə] *n.* 聚合物，聚合体
ceramics [si'ræmiks] *n.* 陶瓷学
aluminum [ə'lu:mənəm] *n.* 铝

有关托牙的口腔外科(I)

有关托牙的口腔外科，包括那些使人造托牙具有牢固的基础，没有显著的骨突或倒凹、无肌肉注附着或过多的粘骨膜阻碍等所必需的口腔手术。这包括去除软、硬两种组织。它也包括那些适用于骨质缺损修复、缺牙修复或插入托牙用的固定支架等口内、外手术。

口内、外托牙外科手术的类型

I. 口内手术：口内手术涉及：(1)妨碍放置托牙或托牙稳定的纤维条索；(2)戴托牙区的骨组织异常。

a)软组织异常：最妨碍戴上颌托牙的软组织是唇系带的附着点过低或肥大，以及

降中隔、上唇切牙(上切牙)、鼻(鼻)、鼻翼部分和颊肌的起始点过低或肥大。唇颊沟、牙槽嵴或硬腭等的增生常见于多年戴有不合适托牙的患者。

在下颌，妨碍托牙就位的是舌系带、颏舌、颏、下唇切牙及颊肌的起点过高或肥大。

这些异常可用外科手术加以矫正，如唇系带切除、降中膈肌的再定位、舌系带修整、颊沟加深以及上下颌牙槽嵴增生组织切除。

b)骨组织异常:在许多称为外生骨疣的骨突起中，最普通的是腭中缝处的腭隆突。下颌舌侧的骨突起(下颌隆突)和上颌结节的异常突出也不少见。这些都不是病理性的。患者很少发觉它们，甚至一个大的腭隆突悬在硬腭正中也很少引起患者不适；但是当患者必须用假牙时，这些情况的存在就发生明显的机械性困难。

拔牙时损伤牙槽骨及软组织，常常产生牙槽嵴外形的小缺损。锐利的骨尖及深的倒凹，特别是上颌磨牙区，是在拔牙时未作修整而发生的。应该强调拔牙时爱护口腔组织，这将无疑可预防许多小的缺损。

许多以骨突作为特点的小缺陷——如外生骨疣、腭隆突，是容易修复的，可以在该处作一个切口，把软组织牵开到突起很好暴露为止。可用咬骨钳或骨凿去除它们，然后挫平骨面，用丝线或任何类似的线闭合伤口。偶尔，当软组织过多时，尚需把它们修去一部分。

牙槽骨修整指的是用外科方法除去上颌或下颌牙槽突。但是，牙槽突不是完全切除，而仅仅是修平准备装托牙的部分。这样，牙槽骨修整包括切开和翻开粘骨膜，以及拔牙后修整牙槽突。

II. 口外手术:口外手术包括:(A)外科修整上下颌前突及小颌畸形;(B)植入骨片、金属或丙烯酸酯埋藏物代替疾病或外伤和手术引起的骨缺损。

埋藏托牙支架:埋藏托牙支架是一放在牙槽骨上附有数个小支柱的金属支架。这些小支柱通过牙龈突出于口腔内，以保持托牙稳固。埋藏托牙支架用于不能戴普通托牙的牙槽萎缩患者。

磁铁埋藏:全口托牙固定借助于埋藏在颌骨及托牙内的小型强力的磁铁。颌骨每侧放一磁铁，完全由粘骨膜覆盖，相应的磁铁则放在常规的托牙内。颌骨及托牙内磁铁之间的吸力可帮助托牙固定。

牙栽植:牙栽植包括三种方法:重植、移植、种植。

a. 重植:重植，即将牙再插入一有目的拔除或因外伤而脱落了牙的牙槽窝内。重植完全适合牙槽窝，所以成功的程度高。

b. 移植:移植就是将一天然牙插入新近拔牙的牙槽窝内。自体移植(同一口腔内由一处移植到另一处)由于把牙立即移植到一新的位置，因此成功率高，存活期无限。移植牙最好是牙根几乎已完全形成，而它的根尖仍然是开放的。最常用于第一或第二磨牙位置上的自体移植牙是第三磨牙。异体牙移植可能是第一个人体器官移植。牙移植已有几百年历史了。植入牙可能是以前拔除而保存起来的牙，或者是新近拔除的另

一人的牙。

c. 种植：就是将一人造牙插入新的牙槽窝内(非生物性置换)。可接受的物质可分为四大类：金属(钛或活合金)、聚合物、陶瓷(氧化铝)和碳类。

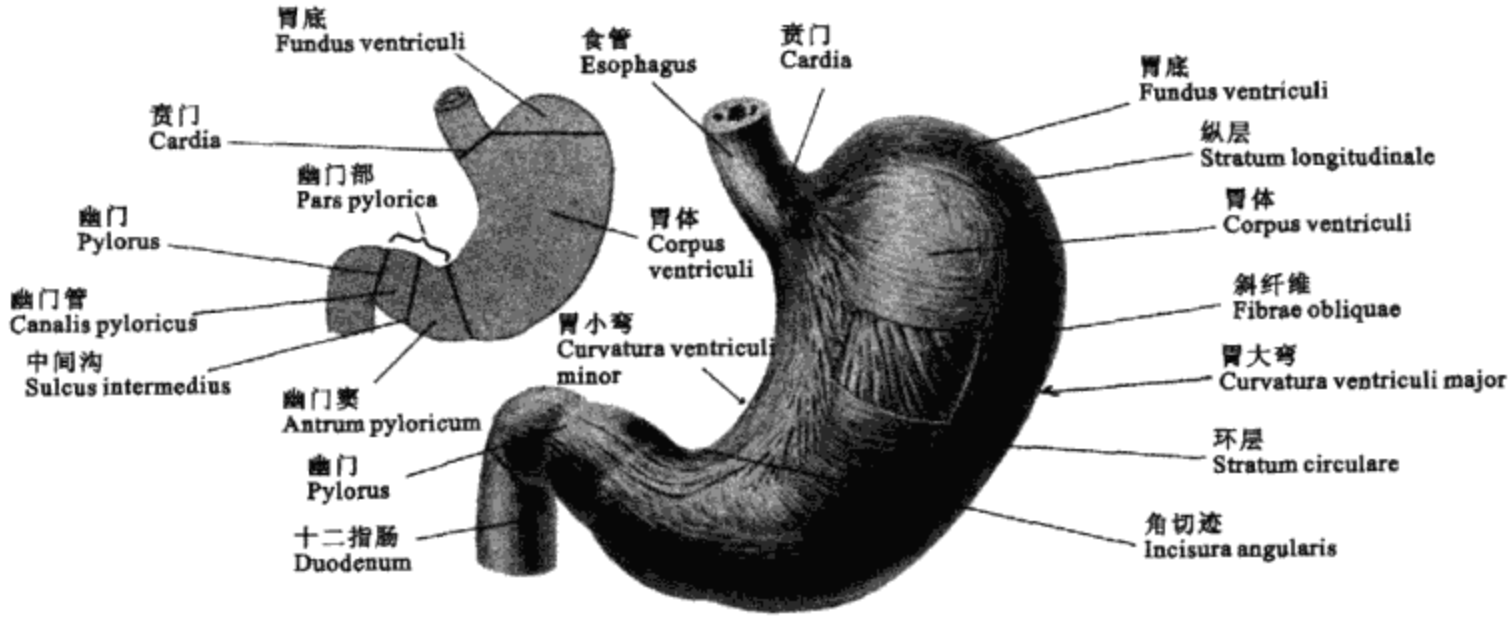
Answer the questions

1. In what accordance are the blood vessels divided into three kinds?
2. What is the difference between the arteries and veins?
3. What is the main function of the capillaries?

Unit Nine

Text A The Digestive System

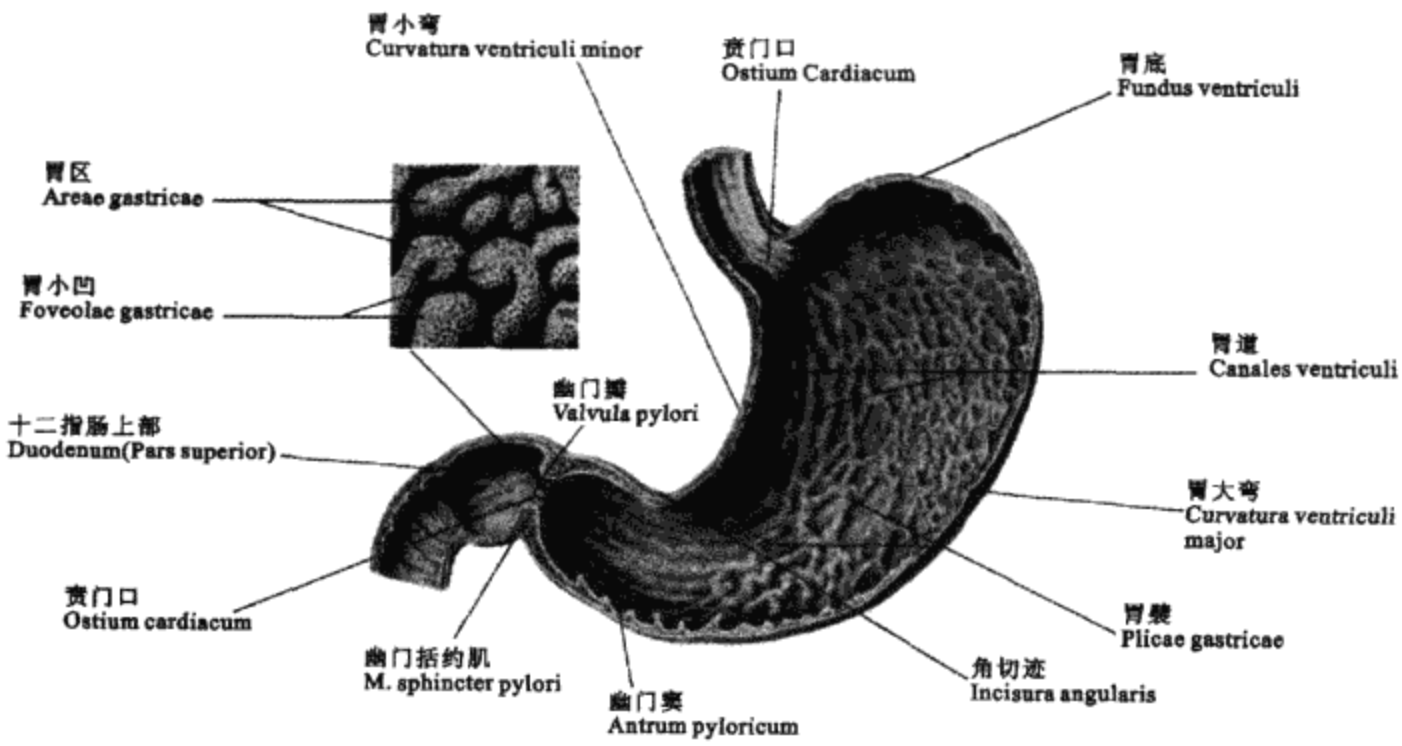
The digestive system comprises all organs which have to do with taking in food and converting the useful parts of it into substances that the body cells can use. Examples of these organs are the mouth, the teeth, and the alimentary tract (esophagus, stomach, intestine and accessory organs such as the liver and the pancreas). The esophagus receives the contents of the contracting pharynx and forces them on by peristalsis. It extends through the neck and chest and finally empties into the stomach.



胃的肌层和分部

The muscular coat and the subdivisions of the stomach

The stomach is actually an enlarged section of the alimentary tube. At either end of the stomach, there is an orifice. The first of these is the cardiac orifice, located between the esophagus and the stomach. At the bottom end of the stomach, connecting it with the small intestine, is the other orifice, called the pyloric orifice, which is guarded by the pyloric sphincter. When the stomach is filled, the pyloric sphincter closes and retains the contents until the food has been mixed with certain digestive juice collectively called gastric juice.



胃 粘 膜
The mucous membrane of the stomach

The food in the stomach is partially digested by the gastric juice. It is in the small intestine that the greater part of the digestive process takes place and absorption occurs.

Once the processes of digestion and absorption have taken place, the remains of the food are of no further use to the body. They pass out of the body through the large intestine in the form of faeces.

Word List

comprise [kəm'praiz] *v.* 由……组成，包括
convert [kən'və:t] *v.* 变化，转化
substance ['sʌbstəns] *n.* 物质，内容
alimentary [ˌæli'mentəri] *a.* 消化的
alimentary tract 消化道
esophagus [ai'sɔfəgəs] *n.* (*pl.* esophagi [ai'sɔfəgai]) 食道
accessory [æk'sesəri] *a.* 辅助的，副的
pancreas ['pæŋkri:əs] *n.* 胰腺
content ['kɔntent] *n.* 内容，容量
contract [kən'trækt] *v.* 收缩
peristalsis [ˌperi'stælsis] *n.* 蠕动
extend [iks'tend] *v.* 伸展，延长

empty ['empti] *v.* 排空
enlarge [in'lɑ:dʒ] *v.* 放大，扩大
orifice ['ɔ:rəfis] *n.* 口，孔
cardiac ['kɑ:di:æk] *a.* 心脏的，贲门的
bottom ['bɔtəm] *n.* 底，基础
pyloric [pai'lɔ:rik] *a.* 幽门的
guard [gɑ:d] *v.* 守卫
sphincter ['sfiŋktə] *n.* 括约肌
collectively [kə'lektivli] *ad.* 总，共同地
gastric ['gæstrik] *a.* 胃的
gastric juice 胃液
partially ['pɑ:ʃəli] *ad.* 部分地，局部地
digest [dai'dʒest] *v.* 消化
remain [ri'mein] *n.* (通常用复数)剩下的东西

Text B Oral Surgery for Dental Prosthesis (II)

Replacement of Lost Mandibular Bone

To restore sections of the mandible following severe trauma or radical surgery, especially for malignancies, bone grafts and mandibular prostheses of metal and acrylic are used.

The successful use of acrylic bars or plates to replace the mandible has been reported by numerous authors. Along with metallic bars and wires, this offers another method whereby reconstruction of the mandible can be done simply and quickly at the time of the original radical surgery. It is not felt that these devices in any way supplant bone grafting in the repair of congenital mandibular defects. However, it is felt that the use of the bar of acrylic prosthesis provides the best method of repair of the mandible following the extensive type of surgery now being employed for the treatment of cancer of the oral cavity.

The silicon rubber implant has many attributes to recommend it. The material need not be tailored for the individual cases; its size is such that it is easily covered with soft tissue. It is almost completely inert when buried in living tissue. It does not show a tendency to slough out even when partially exposed; in addition, the material is not expensive and the methods of handling is easy. The technique of insertion is extremely

simple and lies completely in the field of oral surgery.

Mandibular stainless steel reconstructive appliances are useful in restoring sections of the mandible following severe trauma or radical surgery, especially for malignancies. More nearly normal facial contours are maintained, with improved mental health as a consequence. For successful results, it is essential that the prosthesis be well covered with soft tissue not under tension.

Bone grafts are commonly used to restore the bone defects. Bone grafts can be composed of either compact or cancellous bone. Compact bone transplants may be used in the form of solid pieces or in the form of chips. Cancellous bone is commonly used in the form of chips.The grafts may be taken from ribs or iliac crest.

Word List

malignancy [mə'lignənsi] *n.* 恶性肿瘤
supplant [sə'plænt] *v.* 取代，代替
silicon ['silikən] *n.* 硅
attribute [ə'tribju:t] *n.* 属性，特征
inert [in'ɜ:t] *a.* 无作用的
cancellous ['kænsiləs] *a.* 网状骨质的，多孔的，松质的
chip [tʃip] *n.* 碎片
iliac ['iliæk] *a.* 髂骨的，髂的

有关托牙的口腔外科(Ⅱ)

下颌骨缺损的置换

在严重创伤或根治术后，特别是根治恶性肿瘤的手术后，应用骨移植、金属或丙烯酸酯的下颌膺复体来修复下颌部分。

许多应用者报告利用丙烯酸酯条或板代替下颌骨获得成功。若同时还使用金属条或丝，就成为另一种方法，用此法修复下颌骨，可在原来的根治手术时简便迅速地进行。在修复先天性下颌缺损时，用这种方法来代替植骨尚无经验。但是在目前用来治疗口腔癌的大面积手术后，使用丙烯酸酯条或膺复体来修复下颌，却是最好的方法。

硅橡胶埋藏的特点多，值得介绍。这种材料不需要为各个病例制作；它的大小很容易被软组织覆盖。它埋在活组织内是很稳定的。即使部分外露也无腐坏趋向。此外，材料不昂贵，操作容易。植入操作非常简便，口腔外科完全能做到。

下颌不锈钢髁复体适用于严重外伤或恶性肿瘤根治术后的修复，可保持较接近正常的面形，结果可增进心理健康。取得成功的要点是修复体在无张力下被软组织很好覆盖。

骨移植常用来修复缺损。骨移植片能包含有密质骨或松质骨。密质骨可用整块或碎片的形式移植。松质骨一般以碎片方法移植。移植片可取自肋骨或髂嵴。

Answer the questions

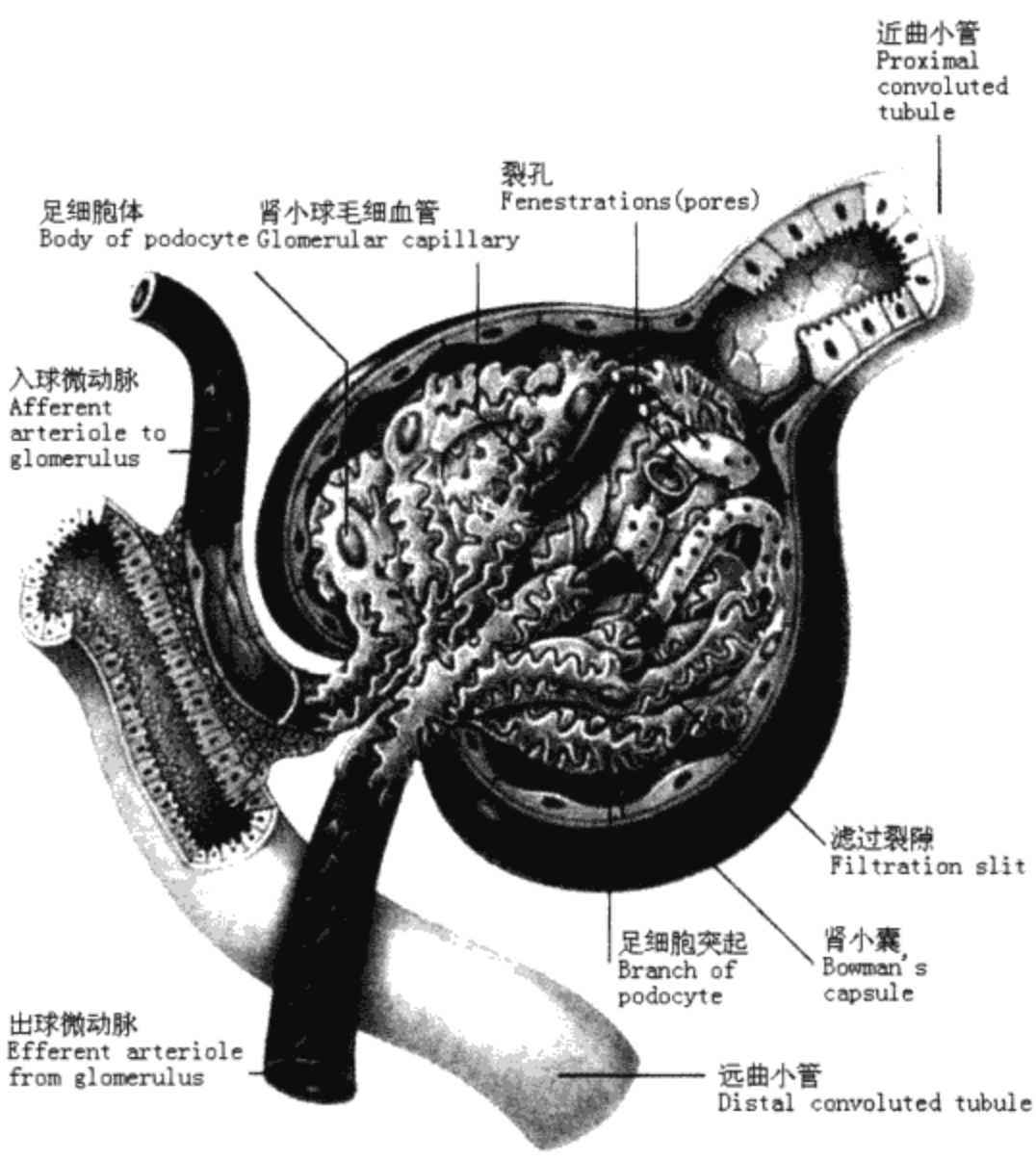
1. What organs does the digestive system include?
2. What is the relation between the stomach and the alimentary tube?
3. What is the relation between the pyloric orifice and the pyloric sphincter?
4. Where do the greater part of the digestive process and absorption occur?
5. Make a description of the process of digestion and absorption.

Unit Ten

Text A The Kidneys

The main parts of the urinary system are the kidneys, the ureters, the urinary bladder and the urethra.

The two kidneys lie against the muscles of the back in the upper abdomen. They are protected by the ribs and their cartilages. Each kidney is encircled by a capsule of fat which acts as its chief supporting structure. On the inner or medial border of the kidney, there is a notch called the hilum, at which region the artery, the vein and the ureter connect with the kidney.



The basic unit of the kidney, where the kidney's work is actually done, is called a nephron, and a nephron is essentially a tiny coiled tube (called a convoluted tubule) with a bulb on one end containing a cluster of capillaries. A kidney is composed of over one million nephrons.

The cluster of capillaries within the bulb of each nephron has one blood vessel (an arteriole) to supply it with blood, and another tiny vessel to drain it. Each nephron is able to "clean" or filter a very large volume of blood without causing the body to lose too much of its water or other essential materials. The water that the nephrons do retain becomes increasingly more concentrated with waste materials; and this concentrated mixture is known as urine. The urine collects in a space known as renal basin and passes down the ureters to the bladder.

Word List

kidney ['kidni] *n.* 肾
urinary ['jʊərənəri:] *a.* 尿的，泌尿的
ureter [juə'ri:tə] *n.* 输尿管
bladder ['blædə] *n.* 囊，膀胱
urinary bladder 膀胱
urethra [juə'ri:θrə] *n.* 尿道
protect [prə'tekt] *v.* 保护
cartilage ['kɑ:tlidʒ] *n.* 软骨
encircle [en'sɜ:kəl] *v.* 围绕
capsule ['kæpsju:l] *n.* 被膜，囊
medial ['mi:djəl] *a.* 中间的
border ['bɔ:də] *n.* 边，边界
notch [nɔtʃ] *n.* 凹口，切迹
hilum ['hailəm] *n.*(血管等出入的)门；肾门
nephron ['nefrɔn] *n.* 肾单位
essentially [i'senʃəli] *ad.* 本质上
coil [kɔil] *v.* 卷，盘绕
tubule ['tju:bju:l] *n.* 小管
convoluted ['kɔnvəˌlu:tid] tubule 肾曲小管
bulb [bʌlb] *n.* 球，球茎，延髓
cluster ['klʌstə] *n.* 一群，一串
compose [kəm'pəuz] *v.* 组成，构成

filter ['filtə] *v.* 滤
volume ['vɔlju:m] *n.* 体积，量
increasingly [in'kri:siŋli] *ad.* 继续增加地，日益
concentrate ['kɔnsəntreit] *v.* 浓缩
mixture ['mikstʃə] *n.* 混合物
space [speis] *n.* 空处，场所
renal basin 肾盂

Text B Treatment Plan of Dentures

The office procedures involved in constructing a set of dentures are readily divided into several convenient visits. Essentially, there is very little variation in basic planning in the construction of dentures. Where a particular difficulty may be anticipated, the normal routine may be changed. The first visit concerns itself with the two phases already discussed. The patient is examined, full- mouth X-rays are obtained, and any other necessary diagnostic procedures are instituted. Routinely, a set of preliminary impressions may be obtained at the first visit. In addition, surgical procedures are discussed and planned, and preparative therapy is instituted.

Preoperative therapy is an integral part of the treatment plan in the routine procedure. This therapy embodies the use of any medicinal agent or mouth rest to produce ridges which are well healed and gingivae, which are in good tonus. The patient with old, ill-fitting dentures often presents a problem. As a result of chronic abuse, the epithelium may appear to be irritated markedly. It is imperative to impress upon the patient the importance of having a healthy mouth. When possible, the denture should be removed completely until the mouth is well healed. A reasonable compromise is to wear the dentures whenever necessary, but to remove them in the evening and between meals. In addition, warm saline rinses are indicated as frequently as six times per day. Theses rinses are useful whether the patient removes the old dentures partially or completely.

If surgical intervention is necessary to produce a favorable ridge, sufficient time must lapse for healing before construction of dentures begins. If a patient has worn a denture before, this denture may be altered sufficiently so that it can be worn without producing irritation. The patient is advised to eat a soft, well-balanced diet and to supplement it with the use of vitamins. A high-protein diet including vitamin C and

calcium is indicated. This soft diet does not irritate the healing ridge, and a high calcium content hastens alveolar reformation.

The immediate denture is indicated for the transitional period between the removal of the remaining dentition and the construction of permanent dentures. Frequently, an existing partial denture may be converted into an immediate denture. An alginate impression is obtained with the partial denture in position prior to the removal of the remaining teeth. Although the resulting appliance may not be completely adequate, it will serve for a short period. New dentures are constructed after hearing. The rationale of this procedure is to construct new dentures rather than reline the immediate dentures. The conversion of the partial denture is simple and inexpensive. The construction of new denture does not impose a financial handicap, since this actually will be the only set constructed.

The patient should be aware of the temporary nature of the original prosthesis following any surgery. Sixty days suffice for the healing of the alveolar bone following surgery. However, the mouth should also be valuated clinically before the dentures are made.

The original primary impression have a twofold use. When mounted on an articulator, the impressions serve as a diagnostic procedure. The models of these impressions also serve as the primary model for the fabrication of a well-fitting tray to use in obtaining the final impressions. The primary impressions may be obtained by using either compound, alginates, hydrocolloids, or rubber base elastic impression materials.

During the second office visit, the final impression is taken. This impression is obtained, boxed, and poured, using artificial stone. Bite rims are made prior to the third visit.

The third visit is concerned with obtaining vertical dimension and centric relation. This relationship is fixed and transferred to an articulator. In addition, eccentric relation is obtained, and the condylar guidance path is established. During this visit, it is usually possible to select anterior teeth.

The fourth visit is utilized to set up the anterior teeth on the shellac baseplate and to satisfy the patient's esthetic requirements. It is usually not necessary to try in the posterior tooth set-up. The function of the posterior teeth is one of producing an efficient mechanical means for the mastication of food. As such, the esthetic requirements of the posterior teeth should not influence the operator in the placement of the teeth.

The office procedure at the fifth visit is the insertion of the dentures. This is usually a short visit during which the dentures are inserted and any major discrepancies are adjusted. The patient is sent out on a trial period for several days. He is instructed

carefully in the care, use, and difficulties to be anticipated.

The first post-insertion visit, the sixth office visit, is used to adjust and correct minor discrepancies, to encourage and compliment the patient for his efforts, and, if possible, to obtain a final centric and eccentric relationship. If this can be obtained, the dentures are remounted on the articulator and all final occlusal adjustments are made. The case is then evaluated clinically in the mouth for function to determine that the relationships obtained on the articulator were accurate.

Any subsequent visit is tailored to the patient's needs. Wherever necessary, more adjustment can be made. These visits are usually short, and not more than two follow-up visits are scheduled.

In review, office visits may be divided conveniently into: (1) examination, diagnosis treatment planning, and primary impressions; (2) the final impressions; (3) obtaining vertical dimension and centric and eccentric relationship, also selection of teeth; (4) set-up; (5) insertion of dentures; (6) first post-insertion visit, sore spot adjustment, remounting of case, and final occlusal adjustment; (7) any subsequent visit.

Word List

office ['ɔfis] *n.* 诊所，办事处
impression [im'preʃən] *n.* (牙齿的)印模；印象
institute ['institju:t] *v.* 制定
integral ['intigrəl] *a.* 构成整体所必要的
embody [im'bɔdi] *v.* 使具体化，体现
gingiva [dʒin'dʒaivə] *n.* 牙龈
tonus ['təunəs] *n.* 紧张，张力
abuse [ə'bju:s] *v.* 滥用，妄用
imperative [im'perətiv] *a.* 绝对必要的，紧急的，迫切的
compromise ['kɔmprəmaiz] *n.* 折中办法，和解
alginate ['ældʒineit] *n.* 藻酸盐
appliance [ə'plaiəns] *n.* 应用，装置
reline ['ri:'lain] *v.* 换……的衬里
conversion [kən'və:ʃən] *n.* 变换，转化
impose [im'pəuz] *v.* 把……强加
financial [fai'nænʃəl] *a.* 财政的
handicap ['hændikæp] *n.* 障碍
twofold ['tu:fəuld] *a.* 双重，两倍

mount ［maunt］ *v.* 安放，装置
articulator ［ɑ:'tikjuleitə］ *n.* 咬合架
fabrication ［ˌfæbri'keiʃən］ *n.* 装配，制作
hydroccllloid ［ˌhaidrə'kɔlɔid］ *n.* 水胶体
bite rim 咬合缘，咬合堤
dimension ［di'menʃən］ *n.* 尺寸，尺度
centric ［'sentrik］ *a.* 在中心的，中央的
eccentric ［ik'sentrik］ *a.* 偏心的，离心的
condyalr ［'kɔndila］ *a.* 髁的
shellac ［ʃə'læk］ *n.* 虫胶
esthetic ［i:s'θetik］ *a.* 美的，美学的，审美的
mastication ［'mæstikeiʃən］ *n.* 咀嚼(作用)
discrepancy ［dis'krepənsi］ *n.* 不符合，不一致
trial ［'traiəl］ *n.* 试用，试
compliment ［'kəmplimənt］ *v.* 祝贺
subsequent ［'sʌbsikwənt］ *a.* 随后的，后来的

托牙的治疗方案

门诊翻作一副托牙，为了方便起见，需要病人分几次就诊。实质上，构成托牙的基本设计差异很小。如预料有特殊困难，可改变常规。第一次就诊包括已讨论过的两个阶段，包括检查病人，全口 X 线摄片及其他任何必要的诊断。按常规，第一次就诊是取初模。此外，还包括讨论和设计外科治疗方法，制定修复术前的疗法。

在通常程序中，修复前疗法是治疗方案的组成部分。具体地说，是用医疗措施或口腔休息使牙槽嵴和牙龈康复。患者长期使用不合适的托牙往往产生问题。上皮明显受到刺激，是长期使用不合适托牙所造成的结果。必须使病人明了口腔健康的重要性。如可能的话，托牙应完全摘除，直到口腔组织恢复健康。一个合理的权宜措施，是每当必要时戴上托牙。但在晚上和不进餐时要取下托牙，每天六次用温盐水漱口。不管病人是部分地还是全部地摘除旧托牙，漱口都有用。

如果有必要作外科手术修正牙槽，开始制作托牙前，必须经过一段充分的自愈时间。如果病人以前戴过托牙，托牙可充分修改，使戴用时不产生刺激。嘱咐病人进软的均衡饮食，再辅以维生素。可食含有维生素 C 及钙的高蛋白食物。这种软食对牙槽嵴的愈合无刺激，高钙的含量能加速牙槽骨的形成。

预成托牙是用在残留牙拔除后到制作永久托牙以前这一段过渡期的托牙。往往原

有的部分托牙可转变为预成托牙。在残留牙拔除之前，戴上原有部托牙以海藻酸盐印模材料取模。虽然用此方法制成的托牙不完全合适，但可用一个短时期。新托牙在愈合后制成。这种方法的基本原理是制作新托牙，而不是重衬预成托牙。部分托牙的转换方法简便，价格低廉。制作新托牙在经济上并不是一个问题，实际上要制作的不过是唯一的一副托牙。病人应知道在手术后也需要暂时发挥旧托牙的作用。六十天的时间足够使术后牙槽骨愈合。但是，在托牙制成以前，病人的口腔应作临床上的估计。

原始的初步印模有两重作用。装在𬌗架上，印模起了一个诊断的作用。这些印模模型也可作为制成适当的托盘的初步模型，以便用来取得最终的印模。初步印模可以用印模胶、海藻酸、亲水胶体或橡皮基弹性印模材料制成。

第二次就诊时，取最后印模，用人造石灌注。在第三次就诊之前制𬌗堤。

第三次就诊时，测定垂直距离和正中𬌗关系。这关系确定后转移于𬌗架。此外，测得非正中关系，确定髁道。在这次就诊中，常有可能选择前牙。

第四次就诊时，在虫胶基板上排列前牙，以满足病人美观需要。对于后牙来讲，这样往往没有必要。后牙的功能是在咀嚼食物中起有效的机械作用。因此，后牙美观方面的要求不应对技工排牙有所影响。

第五次就诊是托牙初戴，一般时间不长，戴上托牙调整主要的不适之处，鼓励病人努力配合。如有可能，测定最后的正中和非正中的关系。这一点如能做到，托牙重上𬌗架，作最后的调𬌗。然后，戴在口腔内作临床功能估价，以确定在𬌗架上获得的关系的精确性。

随后的就诊是根据病人需要而定。如有必要，可作更多的修改。这些复查一般时间较短，随后的复诊也不会超过二次。

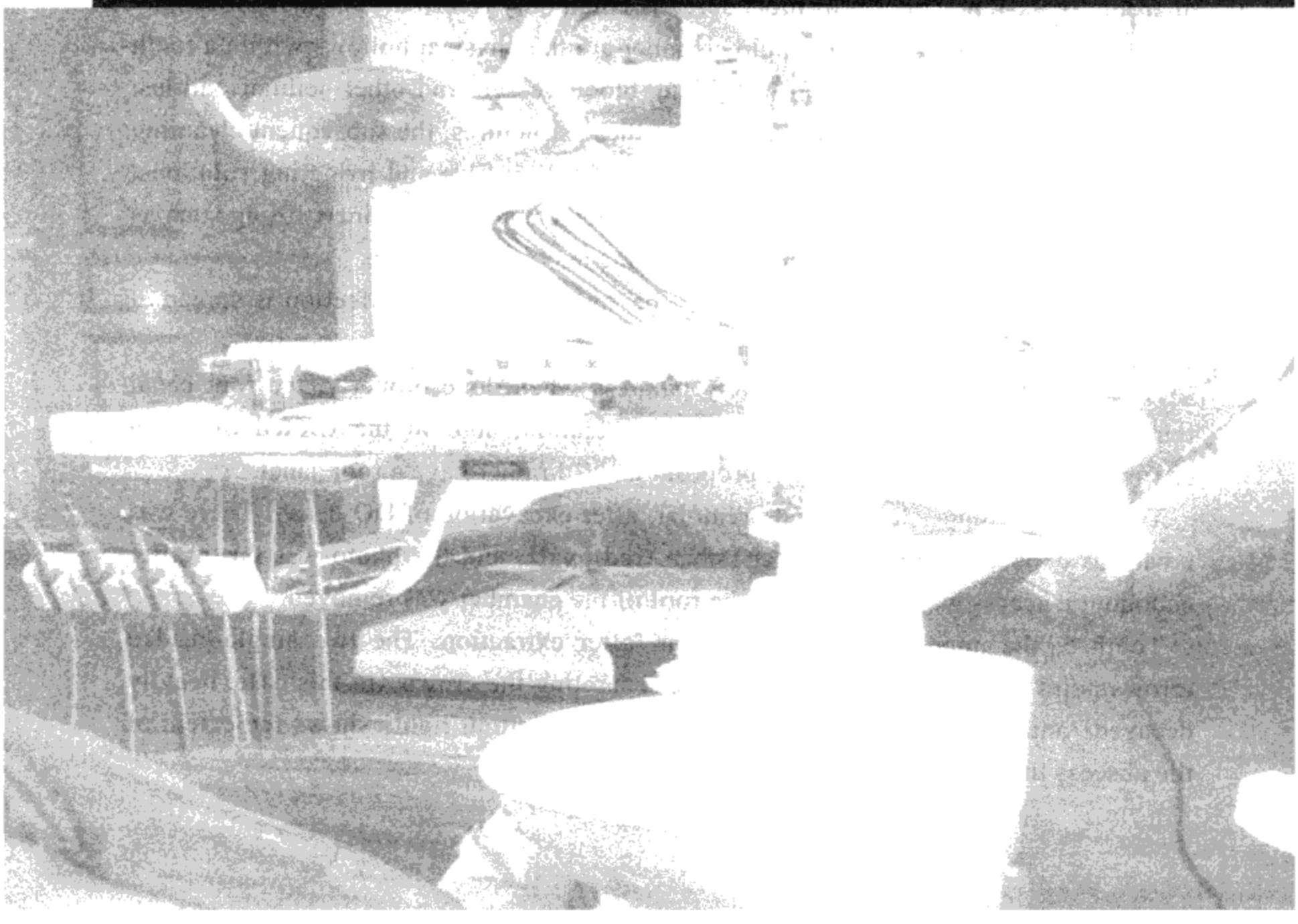
回顾一下，就诊可简便地分为(1)检查、诊断、治疗计划和初步印模；(2)最后印模；(3)测定垂直距离、正中和非正中关系，同时选择假牙；(4)排牙；(5)托牙初戴；(6)初戴后第一次复查，修改痛点，重上𬌗架，最后调𬌗；(7)以后的复查。

Answer the questions

1. Where are the two kidneys located?
2. How the kidneys are protected and supported?
3. Where is the kidney's work actually done?

Part III

Reading & Translating Practice



Current Articles in Medicine & Oral Medicine

A: Endodontic Therapy

Root canal procedure: unhealthy or injured tooth, drilling and cleaning, filing with endofile, rubber filling and crown.

Endodontic therapy is a sequence of treatment for the pulp of a tooth which results in the elimination of infection and protection of the decontaminated tooth from future microbial invasion. This set of procedures is commonly referred to as a "root canal". Root canals and their associated pulp chamber are the physical hollows within a tooth that are naturally inhabited by nerve tissue, blood vessels and other cellular entities. Endodontic therapy involves the removal of these structures, the subsequent cleaning, shaping, and decontamination of the hollows with tiny files and irrigating solutions, and the *obturation* (filling) of the decontaminated canals with an inert filling such as gutta percha and typically a eugenol-based cement.

After endodontic surgery the tooth will be "dead", and if an infection is spread at apex, root end surgery is required.

Although the procedure is relatively painless when done properly, the root canal remains a stereotypically fearsome dental operation, and, in the United States, a common response to an unpleasant proposal is, "I'd rather have a root canal."

Tooth 13, the upper left second premolar, after excavation of DO decay. There was a carious exposure into the pulp chamber (red oval), and the photo was taken after endodontic access was initiated and the roof of the chamber was removed.

Tooth 5, the upper right first premolar, after extraction. The two single-headed arrows point to the CEJ, which is the line separating the crown (in this case, heavily decayed) and the roots. The double headed arrow (bottom right) shows the extent of the abscess that surrounds the apex of the palatal root.

In the situation that a tooth is considered so threatened (because of decay, cracking, etc.) that future infection is considered likely or inevitable, a pulpectomy, removal of the pulp tissue, is advisable to prevent such infection. Usually, some inflammation and/or infection is already present within or below the tooth. To cure the infection and save the tooth, the dentist drills into the pulp chamber and removes the infected pulp and then drills the nerve out of the root canal(s) with long needle-shaped drills. After this is done, the dentist fills each of the root canals and the chamber with an inert material and seals up the opening. This procedure is known as root canal therapy. With the removal of nerves and blood supply from the tooth, it is best that the tooth be fitted with a crown which increases the prognosis of the tooth by six times.

The standard filling material is gutta-percha, a natural non-elastic latex from the sap of the percha (Palaquium gutta) tree. The standard endodontic technique involves inserting a gutta-percha cone (a "point") into the cleaned-out root canal along with cement and a sealer. Another technique uses melted or heat-softened gutta-percha which is then injected or pressed into the root canal passage(s). However, gutta-percha shrinks as it cools, so thermal techniques can be unreliable; sometimes a combination of techniques is used. Gutta-percha is radiopaque, allowing verification afterwards that the root canal passages have been completely filled in, without voids.

An alternative filling material was invented in the early 1950s by Angelo Sargenti. It has undergone several formulations over the years (N2, N2 Universal, RC-2B, RC-2B White), but all contain paraformaldehyde. The paraformaldehyde, when placed into the root canal, forms formaldehyde, which penetrates and sterilizes the passage. The formaldehyde is then theoretically transformed to harmless water and carbon dioxide. If the Sargenti paste is confined to the tooth root, the outcome is similar to a root canal done with gutta percha. Unfortunately, in rare cases, the paste can be forced past the root tip into the surrounding bone. If this happens, the formaldehyde can cause serious and painful permanent damage to the bone. Therefore, the American Association of Endodontists considers the Sargenti technique unsafe and substandard care. In 1991 the ADA Council on Dental Therapeutics resolved that the treatment was "not recommended", and it is not taught in any American dental school. The Sargenti technique has its advocates, however, who believe N2 to be less expensive and at least as safe as gutta-percha.

For some patients, root canal therapy is one of the most feared dental procedures, perhaps because of a painful abscess that necessitated the root canal procedure. However, dental professionals assert that modern root canal treatment is relatively painless because the pain can be controlled with a local anesthetic during the

procedure and pain control medication can be used before and/or after treatment assuming that the dentist takes the time to administer one. However, in some cases it may be very difficult to achieve pain control before performing a root canal. For example, if a patient has an abscessed tooth, with a swollen area or "fluid-filled gum blister" next to the tooth, the pus in the abscess may contain acids that inactivate any anesthetic injected around the tooth. In this case, the dentist may drain the abscess by cutting it to let the pus drain out. Releasing the pus releases pressure built up around the tooth; this pressure causes the pain. The dentist then prescribes a week of antibiotics such as penicillin, which will reduce the infection and pus, making it easier to anesthetize the tooth when the patient returns one week later. The dentist could also open up the tooth and let the pus drain through the tooth, and could leave the tooth open for a few days to help relieve pressure.

At this first visit, the dentist must ensure that the patient is not biting into the tooth, which could also trigger pain. Sometimes the dentist performs preliminary treatment of the tooth by removing all of the infected pulp of the tooth and applying a dressing and temporary filling to the tooth. This is called a pulpectomy. The dentist may also remove just the coronal portion of the dental pulp, which contains 90% of the nerve tissue, and leave intact the pulp in the canals. This procedure, called a "pulpotomy", tends to essentially eliminate all the pain. A pulpotomy may be a relatively definitive treatment for infected primary teeth. The pulpectomy and pulpotomy procedures eliminate almost all pain until the follow-up visit for finishing the root canal. But if the pain returns, it means any of three things: the patient is biting into the tooth, there is still a significant amount of sensitive nerve material left in the tooth, or there is still more pus building up inside and around the infected tooth; all of these cause pain.

After removing as much of the internal pulp as possible, the root canals can be temporarily filled with calcium hydroxide paste. This strong alkaline base is left in for a week or more to disinfect and reduce inflammation in surrounding tissue. Ibuprofen taken orally is commonly used before and/or after these procedures to reduce inflammation. The following substances are used as root canal irrigants during the root canal procedure:

- 5.25% sodium hypochlorite (NaOCl)
- 6% sodium hypochlorite with surface modifiers for better flow into nooks and crannies
- 2% chlorhexidine gluconate (Perioxidina Plus-2)
- 0.2% chlorhexidine gluconate plus 0.2% cetrimide (Cetrexidin)

- 17% ethylenediaminetetraacetic acid (EDTA)
- Framycetin sulfate (Septomixine)
- Biopure MTAD Mixture of citric acid, Docycline, and Tween-80 (detergent) by Dentsply USA (MTAD)

After receiving a root canal, the tooth should be protected with a crown that covers the cusps of the tooth. Otherwise, over the years the tooth will almost certainly fracture, since root canals remove tooth structure from the tooth and undermine the tooth's structural integrity. Also, root canal teeth tend to be more brittle than teeth not treated with a root canal. This is commonly because the blood supply to the tooth, which nourishes and hydrates the tooth structure, is removed during the root canal procedure, leaving the tooth without a source of moisture replenishment. Placement of a crown or cusp-protecting cast gold covering is recommended also because these have the best ability to seal the root canaled tooth. If the tooth is not perfectly sealed, the root canal may leak, causing eventual failure of the root canal. Also, many people believe once a tooth has had a root canal treatment it cannot get decay. This is not true. A tooth with a root canal treatment still has the ability to decay, and without proper home care and an adequate fluoride source the tooth structure can become severely decayed (often without the patient's knowledge since the nerve has been removed, leaving the tooth without any pain perception). Thus, non-restorable carious destruction is the main reason for extraction of teeth after root canal therapy, with up to two-thirds of these extractions. Therefore it is very important to have regular X-rays taken of the root canal to ensure that the tooth is not having any problems that the patient would not be aware of.

Pulp tissue may be removed during endodontic therapy by a size 20 broach file.

The procedure is often complicated, depending on circumstances, and may involve multiple visits over a period of weeks. The cost is typically high.

Innovation

In the last ten to twenty years, there have been great innovations in the art and science of root canal therapy. Dentists now must be educated on the current concepts in order to optimally perform a root canal. Root canal therapy has become more automated and can be performed faster, thanks to advances in automated mechanical instrumentation of teeth and more advanced root canal filling methods. Most root canal procedures are done in one dental visit, lasting around 1–2 hours. Dentists also possess newer technologies that allow more efficient, scientific measurements to be taken of the dimensions of the root canal that must be filled. Many dentists use dental

loupes to perform root canals, and the consensus is that root canals performed using loupes or other forms of magnification are more likely to succeed than those performed without them. Although general dentists are becoming versed in these advanced technologies, they are still more likely to be used by specialist root canal doctors (known as endodontists).

Laser root canal procedures are a controversial innovation. Lasers may be fast but have not been shown to thoroughly disinfect the whole tooth, and may cause damage.

Procedural accidents

Sometimes a tool can break while it is in the tooth. If the tip of a spiral metal file used by the doctor breaks off during the procedure, it is usually left behind and not extracted, leaving the patient with a small amount of retained metal. The occurrence of this event is proportional to the narrowness, curvature, length, calcification presence and number of roots on the tooth being treated. Complications resulting from retained metal are not well studied, but the occurrence of tool breakage is well documented.

Success and prognosis

Fractures of endodontically treated teeth increase considerably in the posterior dentition when cuspal protection is not provided by a crown.

Root canal treatments can fail. Patients should be educated on some of the reasons why root canals may fail. They may fail if the dentist does not find, clean and fill all of the root canals within a tooth. For example, on a top molar tooth, there is a more than 50% chance that the tooth has four canals instead of just three. But the fourth canal, often called a "mesio-buccal 2", tends to be very difficult to see and often requires special instruments and magnification in order to see it (most commonly found in first maxillary molars; studies have shown an average of 76% up to 96% of such teeth with the presence of an MB2 canal). So it may be missed, and this infected canal may cause a continued infection or "flare up" of the tooth. Any tooth may have more than one canal, which may be missed while performing the root canal. Sometimes the canal may be unusually shaped, making it impossible to fill it completely, so that some infected material is still left in the canal. Sometimes the canal filling does not extend deeply enough into the canal, or it does not fill the canal as much as it should. Sometimes a tooth root may be perforated while the root canal is being performed, making it difficult to fill the tooth. The hole may be filled with a material derived from natural cement called MTA, although usually a specialist would

perform this procedure. Fortunately, a specialist can often re-treat and definitively heal up these teeth, often years after the initial root canal procedure.

However, the survival or functionality of the endodontically-treated tooth is currently the emerging aspect of endodontic treatment outcome, rather than healing. Recent studies indicate that substances commonly used to clean the interior of the tooth provide a low overall chance of succeeding in completely sterilizing a tooth internally. However, a properly restored tooth following root canal therapy yields long-term success rates near 97%. In this large scale Delta Dental Study of over 1.6 million patients who had root canal therapy, 97% had retained their teeth 8 years following the procedure, with most untoward events, such as re-treatment, apical surgery or extraction, occurring during the first 3 years after the initial endodontic treatment. Endodontically treated teeth are prone to extraction mainly due to non-restorable carious destruction and to a lesser extent to endodontic-related reasons such as endodontic failure, vertical root fracture (VRF), or perforation (procedural error).

Systemic issues

An infected tooth may endanger other parts of the body. People with special vulnerabilities, such as prosthetic joint replacement or mitral valve prolapse, may need to take antibiotics to protect from infection spreading during dental procedures. Both endodontic therapy and tooth extraction can lead to subsequent jaw bone infection. The American Dental Association (ADA) asserts that any risks can be adequately controlled.

In the early 1900s, several researchers theorized that bacteria from teeth which had necrotic pulps or which had received endodontic treatment could cause chronic or local infection in areas distant from the tooth through the transfer of bacteria through the bloodstream. This was called the "focal infection theory", and it led some dentists to advocate dental extraction. In the 1930s, this theory was discredited, but the theory was recently revived by a book entitled *Root Canal Cover-Up Exposed* which used the early discredited research, and further complicated by epidemiological studies which found correlations between periodontal disease and heart disease, strokes, and preterm births. Bacteremia (bacteria in the bloodstream) can be caused by dental procedures, particularly after dental extractions, but endodontically treated teeth alone do not cause bactemia or systemic disease.

Alternatives to root canal treatment

The alternatives to root canal therapy are few. Extraction of the tooth is an option which can be followed with a tooth implant. Many people choose the alternative of "no treatment", but "no treatment" is often not a good alternative due to pain and/or infection.

B: On Hygiene

Hygiene refers to the set of practices perceived by a community to be associated with the preservation of health and healthy living. While in modern medical sciences there is a set of standards of hygiene recommended for different situations, what is considered hygienic or not can vary between different cultures, genders and etarian groups. Some regular hygienic practices may be considered good habits by a society while the neglect of hygiene can be considered disgusting, disrespectful or even threatening.

I. Concept of hygiene

Hygiene is an old concept related to medicine, as well as to personal and professional care practices related to most aspects of living. In medicine and in home (domestic) and everyday life settings, hygiene practices are employed as preventative measures to reduce the incidence and spreading of disease. In the manufacture of food, pharmaceutical, cosmetic and other products, good hygiene is a key part of quality assurance, i.e., ensuring that the product complies with microbial specifications appropriate to its use. The terms cleanliness (or cleaning) and hygiene are often used interchangeably, which can cause confusion. In general, hygiene mostly means practices that prevent spread of disease-causing organisms. Since cleaning processes (e.g., hand washing) remove infectious microbes as well as dirt and soil, they are often the means to achieve hygiene. Other uses of the term appear in phrases including: *body hygiene, personal hygiene, sleep hygeine, mental hygeine, dental hygeine,* and *occupational hygeine*, used in connection with public health. *Hygiene* is also the name of a branch of science that deals with the promotion and preservation of health, also called hygienics. Hygiene practices vary widely, and what is considered acceptable in one culture might not be acceptable in another.

II.Medical hygiene

Medical hygiene pertains to the hygiene practices related to the administration of medicine, and medical care, that prevents or minimizes disease and the spreading of disease.

Medical hygiene practices include:

- Isolation or quarantine of infectious persons or materials to prevent spread of infection.
- Sterilization of instruments used in surgical procedures.
- Use of protective clothing and barriers, such as masks, gowns, caps, eyewear and gloves.
- Proper bandaging and dressing of injuries.
- Safe disposal of medical waste.
- Disinfection of reusables (i.e., linen, pads, uniforms)
- Scrubbing up, hand-washing, especially in an operating room, but in more general health-care settings as well, where diseases can be transmitted.

Most of these practices were developed in the 19th century and were well established by the mid-20th century. Some procedures (such as disposal of medical waste) were tightened up as a result of late-20th century disease outbreaks, notably AIDS and Ebola.

III.Home and everyday life hygiene

Home hygiene pertains to the hygiene practices that prevent or minimize disease and the spreading of disease in home (domestic) and in everyday life settings such as social settings, public transport, the work place, public places, etc.

Hygiene in home and everyday life settings plays an important part in preventing spread of infectious diseases. It includes procedures used in a variety of domestic situations such as hand hygiene, respiratory hygiene, food and water hygiene, general home hygiene (hygiene of environmental sites and surfaces), care of domestic animals, and home healthcare (the care of those who are at greater risk of infection).

At present, these components of hygiene tend to be regarded as separate issues, although all are based on the same underlying microbiological principles. Preventing the spread of infectious diseases means breaking the chain of infection transmission. The simple principle is that, if the chain of infection is broken, infection cannot spread. In response to the need for effective codes of hygiene in home and everyday life settings the International Scientific Forum on Home Hygiene has developed a risk-based approach (based on Hazard Analysis Critical Control Point (HACCP),

which has come to be known as "targeted hygiene". Targeted hygiene is based on identifying the routes of spread of pathogens in the home, and applying hygiene procedures at critical points at appropriate times to break the chain of infection.

The main sources of infection in the home are people (who are carriers or are infected), foods (particularly raw foods) and water, and domestic animals (in western countries more than 50% of homes have one or more pets). Additionally, sites that accumulate stagnant water—such as sinks, toilets, waste pipes, cleaning tools, face cloths—readily support microbial growth, and can become secondary reservoirs of infection, though species are mostly those that threaten "at risk" groups. Germs (potentially infectious bacteria, viruses, etc.) are constantly shed from these sources via mucous, faeces, vomit, skin scales, etc. Thus, when circumstances combine, people become exposed, either directly or via food or water, and can develop an infection. The main "highways" for spread of germs in the home are the hands, hand and food contact surfaces, and cleaning cloths and utensils. Germs can also spread via clothing and household linens such as towels. Utilities such as toilets and wash basins, for example, were invented for dealing safely with human waste, but still have risks associated with them, which may become critical at certain times, e.g., when someone has sickness or diarrhea. Safe disposal of human waste is a fundamental need; poor sanitation is a primary cause of diarrhoeal disease in low income communities. Respiratory viruses and fungal spores are also spread via the air.

Good home hygiene means targeting hygiene procedures at critical points, at appropriate times, to break the chain of infection, i.e., to eliminate germs before they can spread further. Because the "infectious dose" for some pathogens can be very small (10-100 viable units, or even less for some viruses), and infection can result from direct transfer from surfaces via hands or food to the mouth, nasal mucosa or the eye, "hygienic cleaning" procedures should be sufficient to eliminate pathogens from critical surfaces. Hygienic cleaning can be done by:

- Mechanical removal (i.e. cleaning) using a soap or detergent. To be effective as a hygiene measure, this process must be followed by thorough rinsing under running water to remove germs from the surface.
- Using a process or product that inactivates the pathogens in situ. Germ kill is achieved using a "micro-biocidal" product, i.e., a disinfectant or antibacterial product or waterless hand sanitizer, or by application of heat.
- In some cases combined germ removal with kill is used, e.g., laundering of clothing and household linens such as towels and bed linen.

i. Hand hygiene

Defined as hand washing or washing hands with soap and water or using a waterless hand sanitizer.

Hand hygiene is central to preventing spread of infectious diseases in home and everyday life settings.

In situations where hand washing with soap is not an option (e.g. when in a public place with no access to wash facilities), a waterless hand sanitizer such as an alcohol hand gel can be used. They can also be used in addition to hand washing, to minimise risks when caring for "at risk" groups. To be effective, alcohol hand gels should contain not less than 60%v/v alcohol. Hand sanitizers are not an option in most developing countries; in situations where availability of water is a problem, there are appropriate solutions such as tippy-taps, which use much less water and are cheap to make. In low income communities, mud or ash is sometimes used as an alternative to soap.

ii . Respiratory hygiene

Correct respiratory and hand hygiene when coughing and sneezing reduces the spread of germs particularly during the cold and flu season.

- Carry tissues and use them to catch coughs and sneezes;
- Dispose of tissues as soon as possible;
- Clean your hands by hand washing or using an alcohol hand sanitizer.

iii. Food hygiene at home

Main article: Food hygiene

Food hygiene is concerned with the hygiene practices that prevent food poisoning. The five key principles of food hygiene, according to WHO, are:

1. Prevent contaminating food with pathogens spreading from people, pets, and pests.
2. Separate raw and cooked foods to prevent contaminating the cooked foods.
3. Cook foods for the appropriate length of time and at the appropriate temperature to kill pathogens.
4. Store food at the proper temperature.
5. Use safe water and raw materials

Household water treatment and safe storage

Household water treatment and safe storage ensure drinking water is safe for consumption. Drinking water quality remains a significant problem, not only in

developing countries but also in developed countries; even in the European region it is estimated that 120 million people do not have access to safe drinking water. Point-of-use water quality interventions can reduce diarrhoeal disease in communities where water quality is poor, or in emergency situations where there is a breakdown in water supply. Since water can become contaminated during storage at home (e.g. by contact with contaminated hands or using dirty storage vessels), safe storage of water in the home is also important.

Methods for treatment of drinking water include:

1. Chemical disinfection using chlorine or iodine.
2. Boiling.
3. Filtration using ceramic filters.
4. Solar disinfection—Solar disinfection is an effective method, especially when no chemical disinfectants are available.
5. UV irradiation—community or household UV systems may be batch or flow-though. The lamps can be suspended above the water channel or submerged in the water flow.
6. Combined flocculation/disinfection systems—available as sachets of powder that act by coagulating and flocculating sediments in water followed by release of chlorine.
7. Multibarrier methods—Some systems use two or more of the above treatments in combination or in succession to optimize efficacy.

ⅳ. Hygiene in the kitchen, bathroom and toilet

Routine cleaning of "contact" (hand, food and drinking water) sites and surfaces (such as toilet seats and flush handles, door and tap handles, work surfaces, bath and basin surfaces) in the kitchen, bathroom and toilet reduces the risk of spread of germs. The infection risk from the toilet itself is not high, provided it is properly maintained, although some splashing and aerosol formation can occur during flushing, particularly where someone in the family has diarrhoea. Germs can survive in the scum or scale left behind on baths and wash basins after washing and bathing.

Water left stagnant in the pipes of showers can be contaminated with germs that become airborne when the shower is turned on. If a shower has not been used for some time, it should be left to run at a hot temperature for a few minutes before use.

Thorough cleaning is important in preventing the spread of fungal infections. Moulds can live on wall and floor tiles and on shower curtains. Mould can be responsible for infections, cause allergic responses, deteriorate/damage surfaces and

cause unpleasant odours. Primary sites of fungal growth are inanimate surfaces, including carpets and soft furnishings. Air-borne fungi are usually associated with damp conditions, poor ventilation or closed air systems.

Cleaning of toilets and hand wash facilities is important to prevent odours and make them socially acceptable. Social acceptability is an important part of encouraging people to use toilets and wash their hands.

v . Laundry hygiene

Laundry hygiene pertains to the practices that prevent or minimize disease and the spreading of disease via soiled clothing and household linens such as towels. Items most likely to be contaminated with pathogens are those that come into direct contact with the body, e.g., underwear, personal towels, facecloths, nappies. Micro-organisms can also be transferred between contaminated and uncontaminated items of clothing and linen during laundering. Of concern are the new "community" strains of MRSA. Experience in the USA suggests that these strains are transmissible within families, but also in community settings such as prisons, schools and sport teams. Skin-to-skin contact (including unabraded skin) and indirect contact with contaminated objects such as towels, sheets and sports equipment seem to represent the mode of transmission.

Two processes are considered suitable for hygienic cleaning of clothing and linen:

- Washing or laundering at 60°C or above;
- Washing or laundering at 30-40°C using a bleach-based product: This produces decontamination of fabrics by a combination of physical removal and chemical inactivation. However, some types of fungi and viruses that are harder to inactivate may not be removed.

Washing at temperatures of 40°C or below with a non-bleach product is considered to carry a risk of inadequate decontamination.

vi.Medical hygiene at home

Medical hygiene pertains to the hygiene practices that prevents or minimizes disease and the spreading of disease in relation to administering medical care to those who are infected or who are more "at risk" of infection in the home. Across the world, governments are increasingly under pressure to fund the level of healthcare that people expect. Care of increasing numbers of patients in the community, including at home, is one answer, but can be fatally undermined by inadequate infection control in the home. Increasingly, all of these "at-risk" groups are cared for at home by a carer

who may be a household member who thus requires a good knowledge of hygiene. People with reduced immunity to infection, who are looked after at home, make up an increasing proportion of the population (currently up to 20%). The largest proportion are the elderly who have co-morbidities, which reduce their immunity to infection. It also includes the very young, patients discharged from hospital, taking immuno-suppressive drugs or using invasive systems, etc. For patients discharged from hospital, or being treated at home, special "medical hygiene" (see above) procedures may need to be performed for them, e.g. catheter or dressing replacement, which puts them at higher risk of infection.

Antiseptics may be applied to cuts, wounds abrasions of the skin to prevent the entry of harmful bacteria that can cause sepsis. Day-to-day hygiene practices, other than special medical hygiene procedures, are no different for those at increased risk of infection than for other family members. The difference is that, if hygiene practices are not correctly carried out, the risk of infection is much greater.

vii. Home Hygiene in low income communities

In the developing world, for decades, universal access to water and sanitation has been seen as the essential step in reducing the preventable ID burden, but it is now clear that this is best achieved by programmes that integrate hygiene promotion with improvements in water quality and availability, and sanitation. About 2 million people die every year due to diarrhoeal diseases, most of whom are children less than 5 years of age. The most affected are the populations in developing countries, living in extreme conditions of poverty, normally peri-urban dwellers or rural inhabitants. Providing access to sufficient quantities of safe water, the provision of facilities for a sanitary disposal of excreta, and introducing sound hygiene behaviours are of capital importance to reduce the burden of disease caused by these risk factors.

Research shows that, if widely practiced, hand washing with soap could reduce diarrhoea by almost fifty percent and respiratory infections by nearly twenty-five percent. Hand washing with soap also reduces the incidence of skin diseases, eye infections like trachoma and intestinal worms, especially ascariasis and trichuriasis.

Other hygiene practices, such as safe disposal of waste, surface hygiene, and care of domestic animals, are also important in low income communities to break the chain of infection transmission.

viii. Disinfectants and antibacterials in home hygiene

Chemical disinfectants are products that kill germs (harmful bacteria, viruses and fungi). If the product is a disinfectant, the label on the product should say "disinfectant" and/or "kills" germs or bacteria, etc. Some commercial products, e.g. bleaches, even though they are technically disinfectants, say that they "kill germs", but are not actually labelled as "disinfectants". Not all disinfectants kill all types of germs. All disinfectants kill bacteria (called bactericidal). Some also kill fungi (fungicidal), bacterial spores (sporicidal) and/or viruses (virucidal).

An antibacterial product is a product that acts against bacteria in some unspecified way. Some products labelled "antibacterial" kill bacteria while others may contain a concentration of active ingredient that only prevent them multiplying. It is, therefore, important to check whether the product label states that it "kills" bacteria. An antibacterial is not necessarily anti-fungal or anti-viral unless this is stated on the label.

The term sanitizer has been used to define substances that both clean and disinfect. More recently this term has been applied to alcohol-based products that disinfect the hands (alcohol hand sanitizers). Alcohol hand sanitizers, however, are not considered to be effective on soiled hands.

The term biocide is a broad term for a substance that kills, inactivates or otherwise controls living organisms. It includes antiseptics and disinfectants, which combat micro-organisms, and also includes pesticides.

IV. Body hygiene

Body hygiene pertains to hygiene practices performed by an individual to care for one's bodily health and well being, through cleanliness. Motivations for personal hygiene practice include reduction of personal illness, healing from personal illness, optimal health and sense of well being, social acceptance and prevention of spread of illness to others.

Personal hygiene practices include: seeing a doctor, seeing a dentist, regular washing/bathing, and healthy eating. Personal grooming extends personal hygiene as it pertains to the maintenance of a good personal and public appearance, which need not necessarily be hygienic.

Body hygiene is achieved by using personal body hygiene products including: soap, hair shampoo, toothbrushes, tooth paste, cotton swabs, antiperspirant, facial tissue, mouthwash, nail files, skin cleansers, toilet paper, and other such products.

ⅰ. Excessive body hygiene

The benefits of body hygiene can be diminished by the risks of excessive body hygiene, which is hypothesized to cause allergic disease and bodily irritation.

The hygiene hypothesis was first formulated in 1989 by Strachan who observed that there was an inverse relationship between family size and development of atopic allergic disorders – the more children in a family, the less likely they were to develop these allergies. From this, he hypothesised that lack of exposure to "infections" in early childhood transmitted by contact with older siblings could be a cause of the rapid rise in atopic disorders over the last thirty to forty years. Strachan further proposed that the reason why this exposure no longer occurs is, not only because of the trend towards smaller families, but also "improved household amenities and higher standards of personal cleanliness".

Although there is substantial evidence that some microbial exposures in early childhood can in some way protect against allergies, there is no evidence that we need exposure to harmful microbes (infection) or that we need to suffer a clinical infection. Nor is there evidence that hygiene measures such as hand washing, food hygiene, etc. are linked to increased susceptibility to atopic disease. If this is the case, there is no conflict between the goals of preventing infection and minimising allergies. A consensus is now developing among experts that the answer lies in more fundamental changes in lifestyle etc. that have led to decreased exposure to certain microbial or other species, such as helminths, that are important for development of immuno-regulatory mechanisms. There is still much uncertainty as to which lifestyle factors are involved.

Although media coverage of the hygiene hypothesis has declined, a strong "collective mindset" has become established that dirt is "healthy" and hygiene somehow "unnatural". This has caused concern among health professionals that everyday life hygiene behaviours, which are the foundation of public health, are being undermined. In response to the need for effective hygiene in home and everyday life settings, the International Scientific Forum on Home Hygiene has developed a "risk-based" or targeted approach to home hygiene that seeks to ensure that hygiene measures are focused on the places, and at the times most critical for infection transmission. Whilst targeted hygiene was originally developed as an effective approach to hygiene practice, it also seeks, as far as possible, to sustain "normal" levels of exposure to the microbial flora of our environment to the extent that is important to build a balanced immune system.

ii . Excessive body hygiene of external ear canals

Excessive body hygiene of the can result in infection or irritation. The ear canals require less body hygiene care than other parts of the body, because they are sensitive, and the body system adequately cares for these parts. Most of the time the ear canals are self-cleaning; that is, there is a slow and orderly migration of the skin lining the ear canal from the eardrum to the outer opening of the ear. Old earwax is constantly being transported from the deeper areas of the ear canal out to the opening where it usually dries, flakes, and falls out. Attempts to clean the ear canals through the removal of can actually reduce ear canal cleanliness by pushing debris and foreign material into the ear that the natural movement of ear wax out of the ear would have removed.

iii. Excessive body hygiene of skin

Excessive body hygiene of the skin can result in skin irritation. The skin has a natural layer of oil, which promotes elasticity, and protects the skin from drying. When washing, unless using aqueous creams with compensatory mechanisms, this layer is removed leaving the skin unprotected.

Excessive application of soaps, creams, and ointments can also adversely affect certain of the natural processes of the skin. For examples, soaps and ointments can deplete the skin of natural protective oils and fat-soluble content such as cholecalciferol (vitamin D3), and external substances can be absorbed, to disturb natural hormonal balances.

V. Culinary (food) hygiene

Culinary hygiene pertains to the practices related to food management and cooking to prevent food contamination, prevent food poisoning and minimize the transmission of disease to other foods, humans or animals. Culinary hygiene practices specify safe ways to handle, store, prepare, serve and eat food.

Culinary practices include:

- Cleaning and disinfection of food-preparation areas and equipment (for example using designated cutting boards for preparing raw meats and vegetables). Cleaning may involve use of chlorine bleach, ethanol, ultraviolet light, etc. for disinfection.
- Careful avoidance of meats contaminated by trichina worms, salmonella, and other pathogens; or thorough cooking of questionable meats.
- Extreme care in preparing raw foods, such as sushi and sashimi.
- Institutional dish sanitizing by washing with soap and clean water.

- Washing of hands thoroughly before touching any food.
- Washing of hands after touching uncooked food when preparing meals.
- Not using the same utensils to prepare different foods.
- Not sharing cutlery when eating.
- Not licking fingers or hands while or after eating.
- Not reusing serving utensils that have been licked.
- Proper storage of food so as to prevent contamination by vermin.
- Refrigeration of foods (and avoidance of specific foods in environments where refrigeration is or was not feasible).
- Labeling food to indicate when it was produced (or, as food manufacturers prefer, to indicate its "best before" date).
- Proper disposal of uneaten food and packaging.

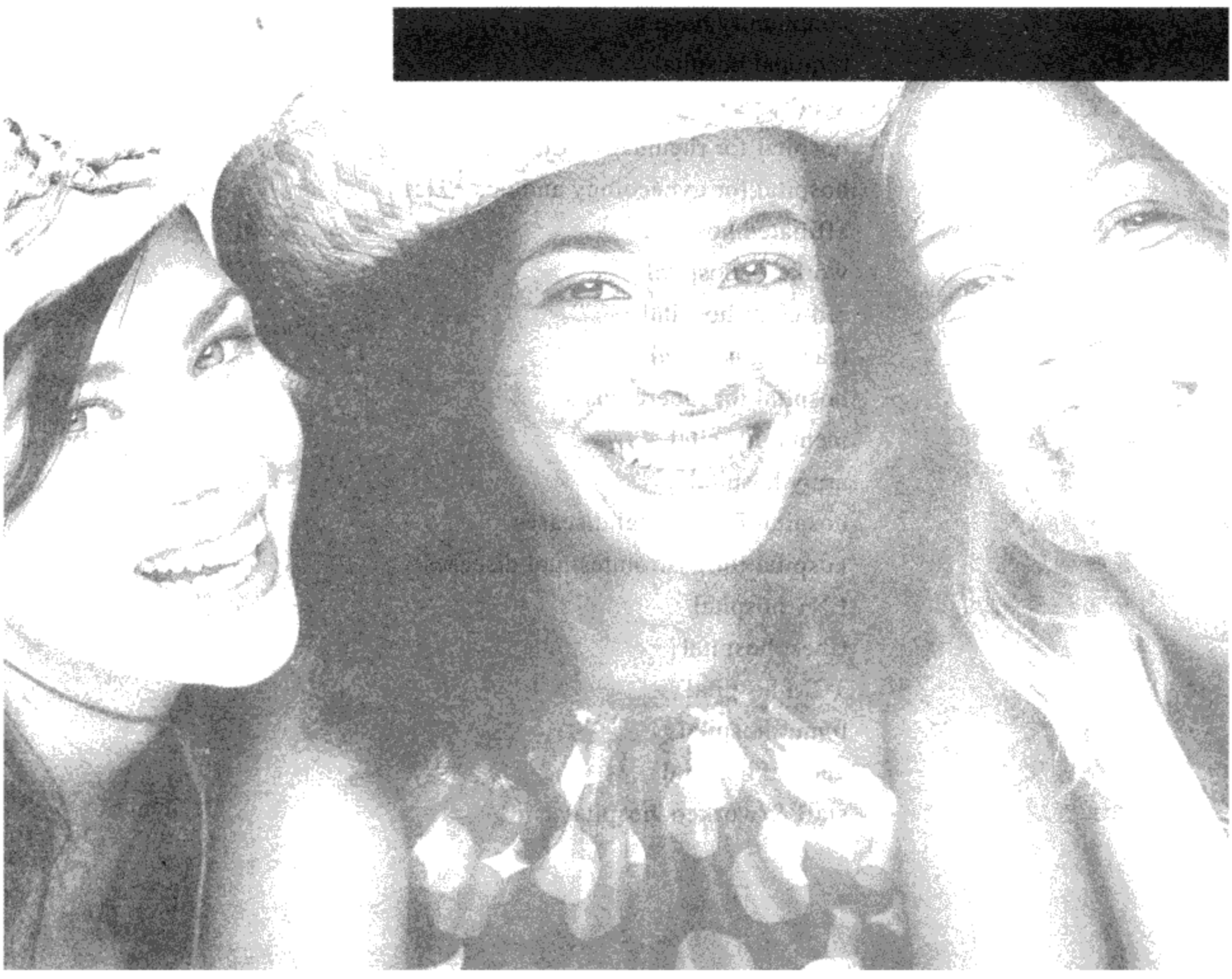
VI. Personal service hygiene

Personal service hygiene pertains to the practices related to the care and use of instruments used in the administration of personal care services to people.

Personal hygiene practices include:

- Sterilization of instruments used by service providers including hairdressers, aestheticians, and other service providers.
- Sterilization by autoclave of instruments used in body piercing and tattoo marking.
- Cleaning hands.

Appendix



Appendix 1

Names of Hospitals &Medical Institutions
各类医院及研究机构名称

传染病院	infectious disease hospital
社区医院	community hospital
地区医院	regional hospital
儿童医院	children's hospital
风湿病医院	hospital for rheumatoid diseases
妇产科医院	hospital for gynecology and obstetrics
附属医院	affiliated hospital
工人医院	worker's hospital
红十字医院	red-cross hospital
教学医院	teaching hospital
结核病医院	hospital for tuberculosis
精神病医院	mental hospital
陆军医院	army hospital
热带病医院	hospital for tropical diseases
胃肠病医院	hospital for gastrointestinal diseases
五官科医院	ENT hospital
胸科医院	Chest hospital
中医院	TCM hospital
肿瘤医院	tumor hospital
综合医院	general hospital
职工医院	staff & workers hospital

中心医院	central hospital
专科医院	specialized hospital
艾滋病研究中心	AIDS research center
白血病研究中心	institute for leukemia research
病毒学研究所	institute of virology
创伤研究所	institute of traumatology
地方病研究所	institute of endemic diseases
放射医学研究所	institute of radiological medicine / institute of radio-medicine / institute of radiation medicine
肝胆疾病研究所	institute of hepatobiliary disease
国家药品监督管理局	The State Drug Administration
国家中医药管理局	The State Administration of Traditional Chinese Medicine and Pharmaceuticals
国家自然科学基金会	The National Natural Science Foundation Council
环境卫生医学研究所	medical institute of environmental hygiene
基础医学研究所	institute of basic medical sciences
寄生虫病防治研究所	institute of anti-parasitic diseases
结核病研究所	institute of tuberculosis
老年病研究所	institute of gerontology
皮肤病研究所	institute of dermatology
烧伤研究所	institute of burns
神经科学研究所	institute of neurosciences
生物制品研究所	institute of biological products
世界卫生组织	World Health Organization（WHO）
输血与血液学研究所	institute of transfusion and hematology
微生物学研究所	institute of microbiology
卫生部	The Ministry of Health
卫生装备研究所	institute of medical equipment
心血管疾病研究所	institute of cardiovascular diseases
眼病防治研究所	institute of prevention and treatment of eye diseases
医疗器械研究所	institute of medical equipment
预防医学研究所	institute of preventive medicine
中国医学科学院	Chinese Academy of Medical Sciences
中国预防医学科学院	Chinese Academy of Preventive Medical Sciences
中华医学会	Chinese Medical Association

中国中西医结合研究会	China Association for the Integration of Traditional Chinese Medicine & Western Medicine
中国护理学会	China Society of Nursing Science
中国红十字会	The Red Cross Society of China
肿瘤研究所	institute of tumor
中国药品生物制品鉴定所	China Institute of Drug and Bioproduct Appraisement

Appendix II

Names of Hospital Medical Staff

医院医务人员职务名称

医师	assistant doctor
住院医师	resident
住院总医师	chief resident
主治医师	attending doctor/visiting doctor / doctor-in-charge
副主任医师	associate senior doctor
护工	orderly
护士	nurse / nurse aide
护师	nurse practitioner
主管护师	nurse-in-charge
副主任护师	associate senior nurse
主任护师	full senior nurse
药士	assistant pharmacist
药师	pharmacist
主管药师	pharmacist-in-charge
副主任药师	associate senior pharmacist
主任药师	full senior pharmacist
技士	technician
技师	technologist
主管技师	technologist-in-charge
副主任技师	associate senior technologist
主任技师	full senior technologist

研究实习员	research assistant
助理研究员	research associate /assistant research fellow
副研究员	associate research fellow
研究员	research fellow
实验员	laboratory technician
助理实验师	assistant experimentalist
实验师	experimentalist
高级实验师	senior experimentalist

Appendix III

1. 与摄食标准有关的专业术语

推荐的膳食供应量	RDA	recommended dietary allowance
估计的平均需要量	EAR	estimated average requirement
可耐受的最高摄取量	Ul	tolerable upper intake level
食品日摄取量	DFI	daily food intake
适宜摄取量	AI	adequate intake
最适饮食	OD	optimal diet
食品卫生标准	SFS	standard of food sanitation
饮用水水质标准	DWS	drinking water standard
食物中农药容许残留量	PPRF	permissible pesticide residue in food
食物中毒调查处理	IMFP	inspection and management of food poisoning
最大钙留量	MCR	maximal calcium retention

2. 常用剂量和剂型

initial dose	首次剂量
individual dose	单次剂量
single dose	一次剂量
usual / recommended dose	普通剂量
therapeutic dose	治疗剂量
maintenance dose	维持剂量
aggressive dose	冲剂剂量
maximum daily dose	最大日剂量
total dose	总剂量
half lethal dose	半致死量
tablet	片剂
powder	粉剂
capsule	胶囊

granule	冲剂
aerosol	气雾剂
pill /bolus	丸剂(小 / 大)
injection	注射剂
suppository	栓剂
suspension	悬浮剂
gargle	漱口剂

Appendix IV

口腔医学专业术语

A

Abrasion	磨损
acid etching	酸蚀
anatomic landmarks	解剖标志
aphonia	失音
apical foramen	根尖孔
arrested caries	静止龋

B

balanced articulation	平衡𬌗
barbed broach	拔髓针
bite fore	咬合力
border seal	边缘封闭
buccal space	颊间隙
bur	牙钻
burnisher	磨光器

C

calcium hydroxide liner	氢氧化钙垫底剂
carborundum wheel	金刚砂轮
cement	粘固剂
chewing force	咀嚼力
cold-curing resin	自凝树脂
complaster	印模石膏

complete prosthodontics	全口义齿修复学
condyle process	髁突
coronoid process	喙突
crown remover	去冠器
curve of compensating	补偿曲线

D

dental arch	牙弓
dental elevator	牙挺
dental explorer	牙科探针
dental forceps	拔牙钳
dental pulp	牙髓
dentin	牙本质
denture adhesive	义齿粘附剂
direct pulp capping	直接盖髓
dovetail retention	鸠尾固位

E

edentulous impression tray	无牙颌印模托盘
edentulous jaw	无牙颌
embrasures	外展隙
endodontic explorer	牙髓探针

F

fissure bur	裂钻
fixed appliance	固定矫治器
flasking	装盒
food impaction	食物嵌塞
tree gingival	游离龈
free gingival margin	游离龈边缘
free gingival groove	游离龈沟
fused tooth	融合牙

G

gag	开口器
gingiva	牙龈
gingival border	龈缘
gingival papilla	牙龈乳头
gingival sulcus	龈沟
gingival papillitis	龈乳头
gingivectomy knife	牙龈刀
gingivitis	龈炎
giromotic handpiece	回旋手机
glass ionomer cement	玻璃离子粘固剂
goshgarian appliance	矫治器
graduated periodontal probe	牙周袋探针
gutta percha point	牙胶尖
gypsum	生石膏，石膏石

H

hard piece	硬腭
height of contour	外形高点
herbst appliance	矫治器
hoe scaler	锄形洁治器

I

impacted tooth	阻生牙
impression wax	印模膏
impression coping	印模帽
impression material	印模材料
impression paste	印模糊剂
impression plaster	印模石膏
impression tray	印模托盘
incomplete tooth fracture	牙隐裂

intercuspal position, ICP 牙尖交错位
interdental papilla 牙间乳头
interdental space 牙间间隙
interdental stick 牙签
interdental wood point 牙签
interproximal space 牙间间隙
investment cast 铸模

J

jacquette (hand) scaler 刮治器
jaw 颌
jaw bone 颌骨

L

leeway space 替牙间隙
lining 垫底
low silver amalgam alloy 低银汞合金
luting 封闭
luting agent 封闭剂

M

mandibular dysplasia 下颌发育异常
mandibular position 颌位
masticatory force 咀嚼力
maxillary tuberosity 上颌结节
maximum contacted intercuspal occlusion 最广泛接触的牙尖交错𬌗
maximum contacted intercuspal position 最广泛接触牙尖交错位
mesioangular impaction 近中阻生
mesiocclusion 近中错𬌗

mini gas torch	小焊枪
modeling compound	印模膏
modeling wax	模型蜡
modulus of elasticity	弹性模量
mouth mirror	口镜
mucosa support	黏膜支持

N

nasion	鼻根点
needle holder	持针器
night guard	夜用护板
normal occlusion	正常𬌗

O

occlusal adjustment	调𬌗
occlusal disharmony	紊乱
occlusal force	𬌗力
oropharynx	口咽
orthodontic appliance	正畸矫治器
orthodontic force	正畸力
orthopedic force	矫形力
overbite	覆𬌗

P

paradenium	牙周组织
pendulous palate uvula	悬雍垂
periapical film	根尖片
periodontal abscess	牙周脓肿
periodontal atrophy	牙周萎缩
periodontal disease	牙周病
periodontal membrane	牙周膜
periodontal pocket	牙周袋

periodontal probe	牙周袋探针
pit and fissure caries	窝沟龋
plugger	充填器
pocket probe	牙周袋探针
polishing agents	抛光剂
primate space	灵长间隙
pulp chamber	髓室
pulp coronale	冠髓
pulp dentis (NA)	牙髓
pulp hyperemia	牙髓充血

R

racer handpiece	直动手机
raritas dentium	牙质疏松
ready-made tray	成品托盘
reamer	扩孔钻
removable appliance	可摘矫治器
residual root	残根
resistance form	抗力形
retromolar pad	磨牙后垫
root canal	根管
root canal explorer	根管探针
root canal reamer	根管锉
root elevator	牙根挺
rotation	转动
round bur	球钻
rubber dam	橡皮障

S

sand paper disc	砂纸片
sand paper strip	砂纸条
scaler	洁治器
self-curing resin	自凝树脂

separating medium	分离剂
shade guide	选牙色板
shade selection	选牙色
shell crown	锤造冠
sickle scaler	镰形洁治器
smooth broach	光滑髓针
spatula	调刀
spot welder	点焊机
sprue	铸道
straight handpiece	直手机
strain	应变
strength	强度
stress	应力
subgingival scaler	龈下洁治器
swaged crown	锤造冠

T

three ways syringe	三用喷枪
tooth arrangement	排牙
tooth color selection	选牙色
tooth support	牙支持
twin block appliance	矫治器

U

universal curette	通用刮治器

V

vestibule of mouth	口腔前庭

W

wax pattern	蜡型
wax spoon	蜡勺
wax spatula	蜡刀
waxes	蜡
waxing	蜡型制作
Wilson appliance	矫治器

Appendixes V

病志样例

病志样例 1

再生障碍性贫血

Aplastic Anemia

姓名：x x x　　性别：女　　年龄：38 岁　　职业：农民

Name: x x x　　Sex: female　　Age:38　　Occupation: peasant

主诉：头晕乏力半个月，伴活动后心悸，气短一周。

C.C. Dizziness and acratia with cardio palmus and shortness of breath after movement for one week.

现病史：半个月来，患者无诱因出现头晕、乏力，休息后症状稍减轻，未诊治。一周前，症状加重，伴活动后心悸、气短、咽痛、牙痛、牙龈出血、发热，最高体温达 39℃。自服去痛片及红霉素，牙痛减轻，但乏力感加重，来我院门诊就诊，查血常规发现：白细胞、红细胞及血小板均减少，以“再生障碍性贫血”为诊断收入院。病来无咳嗽、咳痰，无恶心、呕吐，无鼻衄、血尿，饮食不好，睡眠差，二便正常。

P.I. In recent half a month, without any predisposing cause, there appeared dizziness and acratia. After rest, the symptoms improved a little, without any treatment. One week ago, the symptoms became worse with cardio palmus and shortness of breath after movement, phargnogodynia, toothache, gingival bleeding and fever, the highest temperature: 39℃. Without asking doctor, the patient took painkiller and Erythromycin, and toothache released, but acratia became worse, so the patient came to our OPD for treatment. Blood routine examination showed: WBC, RBC and blood platelet count all reduced. The patient was admitted to the hospital with the diagnosis of “aplastic anemia”. Since the onset of the illness, no cough, expectoration, nausea, vomitting, nosebleed or hematuria; poor appetite and sleep, normal urination

and bowel movement.

既往史：否认肝炎、结核病史。否认食物及药物过敏史。

P.H. Any histories of hepatitis and tuberculosis were denied. Allergic histories of food and drugs were denied.

个人史：无烟酒嗜好，无化学药物及放射线接触史。

I.H. No habits of smoking and drinking, no contact histories of chemical medicines or radioactive rays.

月经史及婚育史：$17\frac{7-9}{10-15}$，月经量多少不等，无痛经，孕 3 产 2 流 1，现有二男孩健康。

M.H. and O.H. Menarche occurred at 17, being 10-15 days in interval with a normal flow of 7-9 days' duration; the amount of every menstruation was not equal, no dysemnorrhea, gravida 3, para 2, abortion l, two sons healthy now.

家族史：否认家族中有类似病史。

F.H. Any histories of similar cases in her family were denied.

体格检查：体温 36.3℃，脉搏 80 次／分，呼吸 16 次／分，血压 14/9kPa。发育正常，营养欠佳，慢性病容，重度贫血貌，神清，自动体位。

皮肤粘膜及淋巴结：全身皮肤黏膜无黄染、皮疹及出血点，耳前、耳后、颈部、颌下、锁骨上及腋窝淋巴结无肿大。

头部：头形正，发黑且分布均匀，眼睑无浮肿，巩膜无黄染，眼睑结膜苍白，双瞳孔等大正圆，对光反射正常，口唇无发绀，口腔黏膜无破溃，咽无充血，扁桃体无肿大。

颈部：颈软，两侧对称，颈静脉无怒张，未见异常颈动脉搏动，气管居中，甲状腺不大。

胸部：胸廓对称，呼吸运动平稳，双侧触觉语颤正常，双肺叩诊呈清音，肺下界位于右锁中线第五肋间，双肺呼吸音正常，未闻及干湿性罗音，未闻及胸膜磨擦音。心前区无隆起，心尖搏动不明显，触诊无细震颤，叩诊心界无扩大，心音纯，律整，心率：80 次/分，心尖部闻及 II 级全收缩期吹风样杂音，向左腋下传导。$P_2>A_2$。

腹部：腹平坦，无胃肠型及蠕动波，全腹部无压痛，肝脾肋下未触及，肝肾区无叩痛，移动性浊音阴性，肠鸣音正常。

脊柱及四肢：脊柱呈正常生理弯曲，各棘突无压痛，四肢活动自如，双下肢无浮肿。

神经反射：双膝腱反射正常。双侧巴宾斯基征阴性。

P.E. T.36.3℃, P.80, R.16, BP14/9kPa. Normally developed, poorly nourished,

chronically sickly look, severe anemic face, consciousness, active posture.

Skin, Mucosa and Lymph Nodes: no xanthochromia, skin rash or hemorrhagic spots all over the skin and mucosa, no preauricular, retroauricular, cervical, submaxillary, supraclavicular and axillary fossa superficial lymphadenectasis.

Head: The skull shape was normal. Black hair with uniform distribution, no palpebral edema, no icteric sclera, pallor of palpebral conjunctivae. Both pupils were equally big and round with normal light reflexes. No cyanosis of lips, no ulceration of mucosa of mouth, no congestion of throat, no antiadoncus.

Neck: soft neck with symmetric sides, no jugular venous engorgement. No abnormal pulsation of carotid arteries was seen. Eutopic trachea, no thyroid enlargement.

Chest: symmetric thoraxes, stable respiratory movements, normal both tactile vocal fremitus. Percussion of both lung revealed resonance. The inferior boundary of lung was in the 5th costal space of the right midclavicular line. Normal respiratory sounds of both lungs, no dry and moist rales, no pleural friction sounds, no projection of precardium. Apex beat was not obvious. No fine tremor on palpation, no enlargement of heart border on percussion. Pure heart sounds, regular rhythm, heart rate: 80. In apex area, holosystolic blowing respirations of grade II could be heard, conducting down to the left axilla. $P_2>A_2$.

Abdomen: flat abdomen without gastric pattern, visible peristalsis or peristaltic wave, no tenderness all over the abdomen. Liver and spleen were below the costal margin and impalpable. No percussion pain in the area of liver and spleen. Negative shifting dullness, normal bowel sounds.

Spine and Four Extremities: spine presented with normal physiological curvature; every spinous process had no tenderness. Four extremities could move freely, and legs were not edematous.

Nerve Reflex: normal both patellar tendon reflexes, negative bilateral Babiski's sign.

辅助检查

血常规：白细胞 1.4×10^9/L，淋巴细胞 0.30，中性粒细胞 0.56，单核细胞 0.05，红细胞 1.84×10^{12}/L，血红蛋白 54g/L，血小板数 60×10^9/L。

A.E. blood routine examination: WBC 1.4×10^9/L, L.0.30, N.0.56, M.0.05, RBC 1.84×10^{12}/L, Hb 54g/L, PLT 60×10^9/L.

初步诊断：再生障碍性贫血。

T.D. Aplastic Anemia.

诊治计划：

(1)完善内科检查，做骨髓穿刺检查，明确诊断；

(2)给予康力龙、丙酸睾酮及输血辅助治疗。

Principle of diagnosis and treatment:

(1) Complete medical examinations; do bone marrow puncture examination to establish diagnosis.

(2) Give Stanozolol, Testosterone Propionate and the assistant treatment of hematometachysis.

病程记录 I.C.R.

xx 年 x 月 x 日

入院第 2 天，行骨髓穿刺检查，结果示有核细胞增生低下，未找到巨核细胞，符合再生障碍性贫血的表现。临床上给予输血、康力龙及丙酸睾酮治疗。肝功与肾功回报正常。

xx 年 x 月 x 日

入院第 15 天，患者头晕、乏力明显减轻，活动后仍觉心悸、气短，无发烧及牙龈出血。查体：BP 16/10kPa，贫血貌，HR88 次／分，律齐，双肺无干湿罗音。血常规回报：WBC2.4 × 10^9/L，Hb62.9g/L，PLT75 × 10^9/L，较入院时好转，继续日前治疗。

xx 年 x 月 x 日

入院 30 天，患者无头晕及乏力，无心悸及气短。BP 16/10kPa，轻度贫血貌，HR 82 次／分，律齐。肝脾未及，双下肢无浮肿，血常规回报：WBC 3.2 × 10^9/L，Hb92g/L，PLT 69 × 10^9/L。病情好转，准予出院。

Date: x x x

On the 2nd hospital day, bone marrow puncture was done. Its results showed hypoplasia of harycoyte, and no megalocaryocyte was found and the results accorded with the manifestation of aplastic anemia. Give Hematometachysis, Stanozolol and Testosterone Propionate for clinical treatment. The reports of liver and kidney functions were normal.

Date: x x x

On the 15th hospital day, the patient's dizziness and acratia released obviously, but there were still cardio palmus and shortness of breath after movement. No fever or gingival bleeding. P.E.: BP16/10kPa, anemic complexion, HR88, regular rhythm, no dry and moist rales in both lungs. The reports of blood routine examinations showed: WBC 2.4 × 10^9/L, Hb 62.9g/L, PLT 75 × 10^9/L. The patient's state was much better than that on admission. Keep on present treatment.

Date: x x x

On the 30th hospital day, no dizziness, acratia, cardio palmus or shortness of breath. BP 16/10 kPa, slightly anemic complexion, HR 82, regular rhythm. Liver and spleen were not palpated. Legs were not edematous. The reports of blood routine examinations showed: WBC 3.2×10^9/L, Hh 92g/L, PLT 69×10^9/L. The patient may be discharged from hospital because of her better state.

出院医嘱：

(1)注意休息，避免着凉及感冒；

(2)继续服药：康力龙 20 毫克，日三次口服；丙酸睾酮 100 毫克，每周 2 次肌注；维生素 B_{12} 50 毫克，日三次口服；叶酸 5 毫克，日三次口服；维生素 B_1 10 毫克，日三次口服；

(3)定期门诊复查血象，病情变化及时随诊。

Medical Orders of Discharge:

(1) Pay attention to rest, and avoid catching cold.

(2) Keep on taking medicines: 20mg of Stanozolol orally, 3 times a day; muscular injection of 100mg of Testosterone Propionate, twice a week; 50mg of Vitamin B_{12} orally, 3 times a day; 5mg of Folic Acid orally, 3 times a day; 10 mg of Vitamine B_1 orally, 3 times a day.

(3) Re-examine hemogram in the OPD regularly; come to the OPD for treatment if there is any change of the disease.

病志样例 2

甲状腺机能亢进症

Hyperthyroidism

姓名：xxx　　性别：女　　年龄：29 岁　　职业：营业员

Name: x x x　Sex: female　Age: 29　Occupation: shop assistant

主诉：怕热，多汗，善饥，消瘦 1 年，加重伴乏力 1 个月。

C.C. Fear of hotness, hyperhidrosis, bulimia and getting thinner for one year, exacerbation with acratia for one month.

现病史：1 年前，患者无诱因出现怕热，多汗，善饥，消瘦，半个月来体重下降 10 公斤。多食，烦躁，易怒，心悸，手抖。同时眼球较前突出，偶有畏光，流泪。1 个月前，上述症状加重，来我院就诊，经甲状腺 B 超及化验检查，诊断为“甲亢”。给予他巴唑 10 毫克，日三次口服半个月，症状无减轻，为进一步诊治收入院治疗。病来无发热，无恶心及呕吐，无多饮及多尿，睡眠不好，大便次数增多，每日 3～4 次，小便正常。

P.I. One year ago, without any predisposing cause the patient had fear of hotness, hyperhidrosis, bulimia and magersucht. Her weight was lost 10kg in recent half a month with overeating, dysphoria, bad temper, cardio palmus and vibration of hands. At the same time eyeballs projected a little, occasionally there were photophobia and lacrimation. One month ago the above-mentioned symptoms became worse, so the patient came to our hospital for treatment. After B-US examination of thyroid and lab examinations, it was diagnosed as “hyperthyroidism”, and 10mg of Tapazole was given orally, 3 times a day for half a month, but the symptoms were not improved. The patient was admitted into the ward for further treatment. Since the onset of the disease, no fever, nausea or vomitting, no over drinking or diuresis. Sleep has been good, and times of bowel movement have increased, 3-4 times a day; urination has been normal.

既往史：否认肝炎及结核病史。服去痛片后出现皮疹。

P.H. Any histories of hepatitis and tuberculosis were denied. There were skin rash after taking painkiller.

个人史：无烟酒嗜好，无重大精神创伤。

I.H. No habits of drinking and smoking, no great psychic trauma.

月经史及婚育史：$14\frac{3-4}{25-31}$，无痛经，孕 2 产 1 人工流产 1 次，现有一儿健康。

M.H. and O.H. Menarche occurred at 14, being 25-31 days' in interval with a normal flow of 3-4 days' duration, no dysmenorrhea, gravida 2, para l, artificial l abortion once. Now a son healthy.

家族史：父亲健康，母亲患糖尿病，否认家族中有甲亢病史。

F.H. Father healthy, mother had diabetes. History of familial hyperthyroidism was denied.

体格检查

体温 36.8℃，脉搏 98 次／分，呼吸 18 次／分，血压 16/9.3kPa。发育正常，营养欠佳，体质消瘦，神清，自动体位。

皮肤、黏膜及淋巴结：全身皮肤粘膜无黄染、皮疹及出血点，皮肤潮湿多汗。耳前、耳后、颈部、锁骨上及腋窝淋巴结无肿大。

头部：头形如常，发热分布均匀，突眼征阳性，少瞬目，无眼颤。巩膜无黄染，结膜无苍白，双瞳孔等大正圆，对光反射正常，辐辏反射不良，口唇无发绀，舌质淡红，可见细震颤，咽无充血，扁桃体不大。

颈部：颈软，两侧对称，无颈静脉怒张，未见异常颈动脉搏动，气管居中，双侧甲状腺 II^0 大质软，无压痛，未触及结节，无震颤，可闻及血管杂音。

胸部：胸廓对称，无畸形，呼吸运动平稳，双侧触觉语颤正常，双肺叩诊呈清音，肺肝相对浊音界位于右锁中线第五肋间，双肺呼吸音正常。心前区无隆起，心尖搏动位于第五肋间左锁中线内 1.0 厘米。搏动范围 1.5 厘米×1.5 厘米，触诊无细震颤，心界叩诊无扩大，心音纯，律整，心率 98 次／分，各瓣膜听诊区未闻及杂音，$A_2 = P_2$。

腹部：腹部平坦，无腹壁静脉怒张，全腹无压痛，肝脾不大，肝肾区无叩痛，移动性浊音阴性，肠鸣音活跃。

脊柱及四肢：脊柱呈正常生理弯曲，各棘突无叩痛，四肢活动自如，双下肢无浮肿。双手有水平震颤。

神经反射：双膝腱反射正常，巴宾斯基征阴性。

P.E. T.36.8℃, P.98, R.18, BP 16/9.3kPa. Normally develop, poorly nourished, thin constitution, consciousness, active posture.

Skin, Mucosa and Lymph Nodes: the whole skin and mucosa had no xanthochromia, skin rash or hemorrhagic spot; wet and sweaty skin. No preauricular, retroauricular, cervical, supraclavicular and axillary lymphadenectasis.

Head: skull shape was normal. Black hair with equal distribution, exophthalmus

positive, less nictitation, no vibration of eyes, no icteric sclera. Conjunctivae had no pallor. Both pupils were equally big and round with normal light reflexes. Poor convergence reflex, no cyanosis of lips, greyly red tongue proper. Fine tremor could be seen. No congestion of throat, no anatiadoncus.

Neck: soft neck with two symmetric sides. Respiratory movement was stable. No jugular venous engorgement, no abnormal pulsation of carotid arteries, eutopic trachea, both thyroids were enlarged II^0, soft quarlity, no tenderness, no palpable nodes, no tremor, vascular murmurs could be heard.

Chest: symmetric thoraxes without deformity, stable respiratory movement. Both tactile vocal fremitus were normal. Percussion of both lungs revealed resonance. Pulmonohepatic border of relative dullness was in the 5th intercostal space of the right midclavicular line. Breathing sounds of both lungs were normal, no projection of precardium. Apex beat was in the 5th intercostal space 1.0cm inside the left midclavicular line, pulsation range 1.5cm × 1.5cm, no fine tremor on palpation, heart border on percussion had no enlargement, pure heart sounds, regular rhythm, heart rate: 98, and no murmurs were heard in every auscultatory valve area. $A_2=P_2$.

Abdomen: flat abdomen without varicose veins of abdominal wall, or tenderness over the whole abdomen. Liver and spleen were not enlarged. No percussion tenderness over hepatorenal region, negative shifting dullness, active bowel sounds.

Spine and Four Extremities: spine presented with normal physiological curvature. Every spinous process had no percussion tenderness. Free movement of four extremities, no edema of lower extremities. Two hands had level tremor.

Nerve Reflex: bilateral patellar tendon reflexes were normal, Babinski's sign was negative.

辅助检查

化验：T_3 5.7ng/ml, T_4 22.0ug/L, TSH0.5u/ml.

甲状腺 B 超示双侧甲状腺增大，腺体内血流量丰富。

A.E.Test: T_3 5.7ng/ml, T_4 22.0ug/L, TSH0.5u/ml. B-US examination of thyroid displayed enlargement and rich volume of blood flow of the thyroid glands.

初步诊断：甲状腺机能亢进症

T.D. Hyperthyroidism

诊治计划：

(1)给予他巴唑 10 mg，日三次口服，心得安 10 mg，日三次口服；

(2)完善内科检查，查肌电图、心电图、胸片、扇扫等，完善诊断。

Principle of Diagnosis and Treatment:

(1) Give 10mg of Tapazole, orally, 3 times a day; 10mg of Propanolol, orally, 3 times a day.

(2) Complete medical examination; take electromyogram, ECG, chest film, sector scan and other examinations to establish diagnosis.

病程记录　I. C. R.

xx 年 x 月 x 日

入院第 3 天，患者仍觉多汗，善饥，心悸，查体：BP 17/9.3kPa。皮肤潮湿多汗。HR 96 次 / 分，律齐，双肺无干湿性罗音。肝、肾功、血糖及离子回报正常，血常规 WBC 6.9×10^9 / L。中性粒细胞占 0.68。

xx 年 x 月 x 日

入院 2 周，患者心悸、多汗、善饥明显减轻，体重增加 1 公斤。查体：BP 16/9.3kPa，HR86 次 / 分，律齐，余同前。复查血常规正常，T_3、T_4 正常，减量他巴唑为 10 毫克日二次口服，停用心得安口服。

xx 年 x 月 x 日

入院第 4 周，患者无心悸、易怒，无多汗及善饥，体重增加 5 公斤。化验血白细胞及甲状腺激素水平正常，为避免甲状腺肿大及突眼加重，予小剂量甲状腺片 10 毫克日一次口服。准予出院，门诊随诊。

Date: x x x

On the 3rd hospital day, the patient still felt hyperhidrosis, bulimia and cardio palmus. P.E. :BP.17/9.3kPa. Skin was wet and over-sweaty, HR.96, regular rhythm. Both lungs had no dry and moist rales; functions of liver and kidneys, blood sugar and the report of ion were normal. Blood routine examination: WBC 6.9×10^9/L, N.0.68.

Date: x x x

The patient was in the hospital for 2 weeks and cardio palmus, hyperhidrosis and bulimia obviously improved, weight increased 1 kg. P.E.BP11/3kPa, HR.68, regular rhythm; the other symptoms were the same as before. Re-examination of blood sugar was normal. T_3 and T_4 were normal. Reduce Tapazole to 10mg orally, twice a day. Stop taking Propanolol orally.

Date: x x x

On the 4th week after admission, the patient had no cardio palmus, bad temper, hyperhidrosis or bulimia. Weight increased 5kg. Tests of white blood cells and thyroid hormone level were normal. Small amount of Thyroid Tablets, 10mg, was given orally once a day, in order to avoid thyroid enlargement and the worsening of exophthalmus. The patient may be discharged from hospital and come to the OPD for treatment.

出院医嘱：

(1)注意休息，避免过劳及感染；

(2)继续服用抗甲状腺药物；

(3)定期门诊复查血 WBC 及 T_3 –T_4；调整药物用量。

Medical Orders of Discharge:

(1) Pay attention to rest; avoid over-labor and infection.

(2) Keep on taking anti-hyperthyroidism medicine.

(3) Re-examine WBC and T_3-T_4 regularly in the OPD; regulate the dosage.

病志样例 3

外伤性脾破裂

Traumatic Rupture of Spleen

姓名：x x x　　性别：女　　年龄：59 岁　　职业：教师

Name: x x x　　Sex: female　　Age: 59　　Occupation: teacher

主诉：外伤后左上腹疼痛伴头晕口渴 3 小时。

C.C. Pain in the left epigastrium with dizziness and thirst for 3 hours after trauma.

现病史：该患于 3 小时前被车撞伤左季肋部，伤后无昏迷；1 小时后左上腹疼痛剧烈，伴头晕口渴。在我院急诊室以“脾破裂”诊断收入本病房住院治疗。

P.I. Three hours ago the patient was injured by bus in the left hypochondrium and had no coma after that. One hour later the left epigastrium had violent pain with dizziness and thirst. The patient was admitted to the ward for treatment by our OPD with the diagnosis of “rupture of spleen”.

既往史：冠心病 10 余年，现自服冠心苏合丸维持。否认有传染病接触史。无手术、中毒及输血史。

P.H. Coronary heart disease history for over 10 years. Now the patient herself took Guanxinsuhewan for treatment. Contact histories of infectious diseases were denied. No operation, poisoning and hematometachysis histories.

个人史：出生于本地，久居此地，生活条件较好，无特殊嗜好。

I.H. The patient was born in this locality and lived here for a long period. Living condition was fine. No special habits.

婚育史：25 岁结婚，孕 2 产 2，配偶及子女均健康。月经 $17\frac{4-5}{28-30}$，51 岁闭经，行经期间期、量、色、质均正常。

O.H. The patient got married at 25, gravida 2, para 2. Husband and children all healthy. Menarche occurred at 17, being 28-30 days in interval with a normal flow of 4-5 days’ duration; the last period was at 51; date, amount, color and quality were all normal during the menstrual period.

过敏史：否认有药物及食物过敏史。

A.H. Allergic histories of drugs and food were denied.

家族史：否认有家族性遗传病史。

F.H. Any histories of familial hereditary diseases were denied.

体格检查：体温 36.7℃，脉搏 96 次/分，呼吸 20 次/分，血压 9/5kPa。神志清楚，精神状态正常，抬入病室，查体合作。痛苦病容，周身淋巴结无肿大，皮肤粘膜无黄染，五官端正，头颅外观无畸形，耳鼻无异常分泌物，胸廓对称，左季肋部可见皮下淤斑，左第 10、11 后肋压痛(+)可闻及骨擦音，未见反常呼吸。腹部膨隆，腹式呼吸略受限，上腹部压痛(++)，以左上腹为重，肌紧张(+)反跳痛(+)，肠鸣音弱，腹部叩诊移动性浊音(+)。

P.E. T.36.7℃, P.96, R.20, BP9/5kPa. Consciousness, normal mental state, and the patient was carried to the ward. Cooperative on examination, painfully sickly look. Lymph nodes all over the body were not enlarged. Skin and mucosa had no xanthochromia. Five sense organs were regular. The skull shape had no deformity. No abnormal secretion from ears and nose. Symmetrical thoraxes. In the left hypochondrium ecchymosis beneath the skin could be seen. The 10th and the llth left posterior ribs had tenderness(++), and bony crepitus could be heard; no abnormal breathing. Abdomen was bulged. Abdominal breathing was limited a little. In the epigastrium, tenderness (+), and it was worse in the left epigastrium; muscular tension (+), rebound tenderness (+), weak bowel sounds, abdominal shifting dullness on percussion (+).

辅助检查

血常规：白细胞 23.0×10^9/L，中性分叶核粒细胞 0.90，淋巴细胞 0.10，血红蛋白 106g/L，红细胞 3.75×10^{12} /L。血型：A。

A.E. Blood routine examination: WBC 23.0×10^9/L, Sg0.90, L.0.10, Hb106g/L, RBC3.75×10^{12}/L, blood type:A.

初步诊断：(1)腹部闭合性损伤，脾破裂；(2)失血性休克；(3)肋骨骨折(左 10～11 肋)。

T.D. (1) Abdominal Closed Injury. Rupture of Spleen; (2) Hemorrhage Shock; (3) Fracture of Ribs (left 10th–llth).

治疗原则：(1)输血输液抗休克；(2)急诊行开腹探查术。

Principle of diagnosis and treatment:

(1) Give hematometachysis and transfusion against shock.

(2) Do exploration laparotomy emergently.

病程记录　I.C.R.

xx年x月x日

患者新入院，外伤后左上腹疼痛3小时，伴头晕，口渴。查体：T. 36.7℃，P. 96次/分，BP9/5kPa。神志清，查体合作，痛苦病容，睑结膜苍白，左季肋部可见皮下淤斑。腹式呼吸受限，全腹广泛压痛，以左上腹压痛为重，肌紧张(+)，反跳痛(+)，移动性浊音(+)，左10、11后肋部压痛(+)，骨擦音(+)，反常呼吸(+)，腹腔穿刺抽出不凝血约5毫升。目前诊断：1. 腹部闭合性损伤(脾破裂)。2. 左肋骨骨折。3. 失血性休克。现输血输液抗休克，急诊行开腹探查，脾切除术。科主任会诊后同意以上意见，手术通知单已下，术前医嘱已执行。

术后记录

xx年x月x日

患者在全麻下行开腹探查术，开腹见腹腔内中等量不凝血，探查脾脏于脾蒂上方有一长约3厘米之裂口，分束离断脾结肠韧带及脾胃韧带，近端结扎，将脾脏托出，暴露脾蒂，上三把钳子钳夹，近端行7号线双重结扎并加缝扎，切除脾脏，探查术野无活动性出血及渗血。下腹腔引流管于脾窝，另戳口引出，缝合切口，术终，病人平安返回病房。术后应用抗生素预防感染。

xx年x月x日

术后第3天，生命体征平稳，腹腔引流管和胃肠减压管通畅，术区敷料完整无渗出，无明显腹痛，查体切口区轻压痛，无肌紧张及反跳痛，移动性浊音阴性，注意观察病情变化。

xx年x月x日

脾切除后第6天，腹腔引流管已拔出，不发烧，左侧胸式呼吸受限，左侧肋骨骨折已行胶布叠瓦状外固定，继续应用抗生素预防肺内感染。

xx年x月x日

术后2周，病人一般状态好，生命体征平稳，切口已拆线，甲级愈合，病人可出院。

Date: x x x

This patient was just admitted with pain in the left epigastrium for 3 hours, accompanied by dizziness and thirst after trauma. P.E.:T.37℃, P.96, BP9/5 kPa. Consciousness, cooperative on examination, painfully sickly look, pale palpebrarum. In the left hypochondium ecchymosis beneath the skin could be seen. Abdominal breathing was limited. There was extensive tenderness all over the abdomen, and it was worse in the left epigastrium. Muscular tension (+), rebound tenderness (+); shifting dullness (+), tenderness of the 10th and llth left posterior ribs (+), bony crepitus (+), abnormal breathing (+), 5ml of incoagulable blood was drawn out by abdominal paracentesis. Present diagnosis: (1) abdominal closed injury (rupture of spleen). (2) fracture of the left ribs. (3) hemorrhagic shock. Now hematometachysis and transfusion were being done against shock. Exploration laparotomy and spleenectomy were performed emergently. The chief of the department agreed to the above measures. Operating notice has been sent and the doctor's preoperative orders have been carried out.

Date: x x x

Post-operative record: Under the general anesthesia, exploration laparotomy was done. On opening the abdomen, moderate amount of incoagulable blood was seen in abdominal cavity. In the exploration of the spleen surface, a broken edge about 3cm on the pedicle of spleen was seen. Ligament between spleen and colic, and ligament between spleen and stomach were cut bundle by bundle, and the ligation was done at the proximal end. Spleen was taken out and pedicle of spleen was exposed, and 3 forceps holders were used to perform duplex ligation with No.7 thread at the proximal end and spleenectomy was given. There was no active bleeding or oozing of blood while operated field was detected. The drainage of abdominal cavity was done in splenic recess, and it was induced out through another stabbed edge. The incision was sutured. Then the operation ended. The patient was sent back to the ward safely. Antibiotics were used to prevent postoperative infections.

Date: x x x

On the 3rd post-operative day, the patient's vital signs were stable. Drainage tube of the abdominal cavity and the gastrointestinal decompression tube were smooth. The dressing in the operated area was complete without bloody oozing. No obvious abdominal pain. P.E. There was slight tenderness in the incision area, no muscular

tension or rebound tenderness, shifting dullness (−). Carefully observe the changes of the disease state.

Date: x x x

On the 6th day after the spleenectomy, the drainage tube of the abdominal cavity was taken out. No fever. The left thoracic breathing was limited. The left rib fracture received outer imbricated adhesive bandage. Keep on using antibiotics to prevent infections of lungs.

Date: x x x

There were 2 weeks after the spleenectomy. The patients general state was good. Vital signs were stable. Stitches were removed off. The incision was Grade A healing. The patient may be discharged from hospital.

出院医嘱：(1)加强营养，全休一个月；(2)门诊随诊。

Medical Orders of Discharge:

(1) Increase nutrition, and take one month of entire rest.

(2) Come to the OPD for treatment.

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