

医学英语选读

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SELECTIONS
OF
MEDICAL
ENGLISH

邵循道 主编

人民卫生出版社

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编写说明

本书定名为“医学英语选读”，供医学院校学生学完第一、二、三册英语教材之后使用，可用作英语选修课教材，亦可作为学生课外读物。此外，本书还可供具有同等英语程度的医务人员自学医学英语之用。

课文全部为国外原文材料，选自英美著名的医学教科书（如 Cecil-Loeb Textbook of Medicine, Davis-Christopher Textbook of Surgery 等），医学专著（如 Advances in Internal Medicine, Advances in Pediatrics, Geriatrics, Microsurgery 等），以及医学杂志（如 British Medical Journal, The Lancet, The American Journal of Medicine, The Practitioner 等）。

全书共分四个单元，每一单元各有十篇文章。第一单元为临床诊断和医学基础知识；第二单元为选自医学教科书的若干章节；第三单元以医学专著为主；第四单元为医学杂志及各类体裁的文章（如病例讨论，专题报告，读者来信等）。选材时既注意到专业内容的可接受性，又着眼于语言质量和题材的多样化。本书的目的是培养学生直接阅读国外英语医学书刊的能力。

书中除对各课的主要难点加以注释外，并配有以词汇练习为主的各种形式的练习，以提高学生掌握和运用词汇的能力，同时帮助他们提高对课文的理解深度和阅读速度。为了便于自学，书末附有总词汇表和习题解答。

本册原计划由上海第二医学院梁梦非执笔，不幸他于1984年5月病逝。教材编审组指定武汉医学院刘炎南同志负责执笔续完全书，书中保留了梁梦非生前所选文章十篇。

限于时间和水平，本书在选材、注释、练习等方面难免会有错误或欠妥之处，请读者批评指正。

全国高等医学院校英语教材编审小组

1985年7月23日

CONTENTS

UNIT I

1. Introduction to Physical Diagnosis	1
2. Medical History	3
3. Physical Examination	6
4. Intensive Care Unit (ICU)	9
5. Disinfection and Sterilization	12
6. Asepsis	14
7. Defeat TB ————— Now and Forever	17
8. What Are Enzymes?	21
9. Chemotherapy	24
10. Contact Lenses Brighten Outlook	28

UNIT II

11. What Is Disease (1)	32
12. What Is Disease (2)	36
13. Inflammation (1)	39
14. Inflammation (2)	43
15. Coronary Artery Disease (1)	46
16. Coronary Artery Disease (2)	49
17. Peptic Ulcer (1)	52
18. Peptic Ulcer (2)	55
19. Carcinoma of the Lung (1)	58
20. Carcinoma of the Lung (2)	61

UNIT III

21. The Elderly in Hospital	65
22. Microsurgery	68
23. Noninvasive Diagnosis of Arterial Diseases	71
24. Urinary Tract Infections	75
25. Artificial Cardiac Pacemakers	78
26. Medical Education in U.S.A. (1)	82
27. Medical Education in U.S.A. (2)	86
28. Need for an Artificial Liver	90
29. The Future of Transplantation (1)	93
30. The Future of Transplantation (2)	98

UNIT IV

31. A Welcome Address	103
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32. Children's Health ——— Who Cares?	106
33. Infections and Infestations	110
34. A Letter to the Editor	113
35. A Book Review	115
36. Does Prevention Make a Difference?	117
37. Phage Therapy	120
38. Clinicopathologic Conference (1)	124
39. Clinicopathologic Conference (2)	127
40. How to Grow Old	131

UNIT I

1. Introduction to Physical Diagnosis

As a medical student you are the physician of tomorrow, and as such you need to understand that the physician is a medical detective. You will obtain information from any and every source possible to enable you to unravel the mystery of the patient's illness.

To solve the crime of murder or robbery the police detective asks many questions, often of many people, examines and photographs the premises (or body, as the case may be), and sends various items, such as blood, bullets, bits of paint, and fragments of clothing to the crime laboratory for further study. Only after all possible data have been obtained is he in a position to identify the criminal with the greatest accuracy possible.

The physician in the same fashion is hunting for his criminal, the disease that makes the patient ill. After the witness (the patient) has told his story in his own way, the medical detective will ask many searching questions to elicit items of information that might otherwise be overlooked, or to more specifically characterize information already given. This may include interrogation of family and friends if the patient will not or cannot give a straight story. The body (of the patient) will be examined meticulously in every way possible by the physician, using all of his God-given senses. Other special investigative aids, such as the chemistry laboratory, x-ray films, and microscope, are called into the chase to add further clues to those that the physician has already uncovered by questioning and examining.

It is only after all the data have been assembled that the medical detective is in a position to begin his analysis. By clear thinking based on the information gathered, the physician is usually able to identify definitely the offending disease and to bring about the most effective remedy possible.

These are the methods that you, the medical detective of tomorrow, will use the rest of your days of practice in the never-ending search for the cause of the patient's illness. In this book you are being introduced to the two most fundamental skills necessary for the medical investigation ——— interrogation and examination. At first these procedures will be difficult for you, but with careful study and diligent practice they can be cultivated until you reach a high degree of proficiency. The development or lack of development of these skills differentiates the top-flight clinician from the mediocre.

Notes to the Text

1. as such: in that capacity, in the capacity of (something mentioned previously) (照此, 作为), e.g. Mme. Curie was a brilliant scientist and is known as such (= as a brilliant scientist) to the whole world. The liver acts as a storehouse for minerals and vitamins. As such (= in that capacity) it is indispensable to the human body.
2. unravel: to make clear, to solve 阐明, 解决
3. premises: house or building with grounds 房屋 (及其附属建筑、基地等)
4. bits of paint: lipsticks and face creams 化妆品 (胭脂、口红、香粉等)
5. God-given senses: natural senses, or senses given by god (天赋的) 感官, 感觉
6. ... are called into the chase to: are used to search for 用于寻找
7. as the case may be: according to circumstances (看情况而定), e.g. A patient with appendicitis can be treated by operation or non-surgically, as the case may be.
8. top-flight: excellent or first-rate 优秀的, 第一流的

Comprehension Exercises

- I. Answer the following questions.
 1. In what sense is the physician a medical detective?
 2. When is a physician able to make a correct diagnosis?
 3. What are the two most fundamental skills necessary for medical investigation?
 4. How does the top-flight clinician differ from the mediocre?
- II. For each blank space, supply an appropriate word that completes the sentence.
 1. Mme. Curie was a brilliant scientist and is known as _____ to the whole world.
 2. Only after all possible data have been obtained is the detective in a _____ to identify the criminal with the greatest accuracy possible.
 3. The physician in the same _____ is hunting for his criminal, the disease that makes the patient ill.
 4. Before arriving at a diagnosis, the physician may carry out a physical examination and laboratory tests, or an x-ray film, as the _____ may be.
 5. A physician asks many questions to elicit items of information that might _____ be overlooked.
 6. Laboratory tests and x-rays are often used in _____ of further clues other than those that the physician has already uncovered by questioning and examining.
 7. The physician is in a never-ending _____ for the cause of disease.

8. The development or lack of development of these two skills _____ the top-flight clinician from the mediocre.
- III. From the list of words at the top, select the best synonym for the italicised word or words in each sentence. Rewrite the sentences using the synonyms.
- lipsticks and face creams able solve distinguishes buildings
together with their grounds recognize derive truthful remainder
ignored revealed used to seek
1. You will obtain information from any and every source possible to enable you to *unravel* the mystery of the patient's illness.
 2. The police detective asks many questions, often of many people, examines and photographs the *premises*, and sends various items to the crime laboratory for further study.
 3. A police detective often sends various items, such as blood, bullets, *bits of paint*, and fragments of clothing to the crime laboratory for further study.
 4. Only after all possible data have been obtained is he *in a position* to *identify* the criminal with the greatest accuracy possible.
 5. The medical detective will ask many searching questions to *elicit* items of information that might otherwise be *overlooked*.
 6. This may include interrogation of family members and friends if the patient will not or cannot give a *straight* story.
 7. Other special investigative aids, such as the chemistry laboratory, x-ray films, and microscope, *are called into the chase to add* further clues other than those that the physician has already *uncovered* by questioning and examining.
 8. These are the methods that the physician will use the *rest* of his days of practice.
 9. The development or lack of development of these two skills *differentiates* the top-flight clinician from the mediocre.

2. MEDICAL HISTORY

A patient consults his physician because of unpleasant or unusual subjective sensations (symptoms) that interfere with his comfort or productivity. Alterations in function or structure (signs) are produced by disease. Signs are the objective evidence of an illness that the physician detects by physical examination.

It is essential that the physician be familiar with the normal so that he can detect or determine which signs and symptoms are abnormal. Most patients consider all of their symptoms to be abnormal, which in turn gives them reason for concern. Other patients either minimize or fail to recognize important symptoms. For example, some patients with heat intolerance due to thyrotoxicosis do not recognize this as abnormal,

yet they open the windows in a cool room where others are comfortable. Similarly, some patients with obvious pallor, anemia, and shortness of breath fail to report the presence of blood in their stools because they interpret this as being due to hemorrhoids rather than a possible carcinoma of the colon. One distinguishing feature of the physician is his ability to elicit symptoms, to accurately characterize them, then to establish a diagnosis and a prognosis, and to institute indicated therapy. What is really meant by a given symptom? The physician must be very clear in his understanding of each symptom so that he can accurately communicate his understanding to all persons associated with the patient's care. The medical history should be a chronologic record of the development of a patient's symptoms from the inception of his illness until the time he presents himself to the physician. It includes not only the history of the present illness but also all past illnesses, injuries, and operations, any of which may have an important bearing on the present illness.

An adequate history makes the physical examination more interesting and important and permits the physician to correlate the physical findings with the information previously acquired. Without the history, the physical examination is simply a routine mechanical procedure. The combined data obtained in the history and examination will serve as a guide for additional diagnostic procedures. Finally, on the basis of all the information accumulated, the physician is enabled to make the most accurate diagnosis possible and thus is in a position to treat the patient's illness in the most intelligent and effective fashion. Accurate diagnosis is now and always will be the keystone of rational treatment.

There is no field of medicine in which history-taking is not essential. Since the history will be an integral part of the physician's study of his patients for the rest of his days, the art of history-taking should be cultivated to the highest possible degree.

Notes to the Text

1. reason for concern: reason for anxiety (worry) 使人担心的原因
2. pallor: paleness, especially of the face 苍白, 灰白
3. distinguishing feature: striking characteristic 显著特征
4. chronologic: arranged according to the order of time 按时间顺序的
5. institute indicated therapy: to start treatment required 开始进行与之适应的疗法
6. ... presents himself to the physician: appears before the physician, or comes forward as a patient 找医生就诊
7. have a ... bearing on: have a ... influence on or connection with (对...有影响或联系), e.g. Your remarks have no direct bearing on the subject. Any of the past illnesses has an important bearing on the present illness.

8. correlate . . . with: bring . . . into mutual relation with (使...相互关联),
e.g. A scientist must correlate fact with theory. Research workers find it hard to
correlate the present findings with the information previously obtained.

Comprehension Exercises

I. Answer the following questions.

1. How does disease manifest itself?
2. How do symptoms and signs differ from each other?
3. What role does history-taking play in the diagnosis of disease?
4. Under what condition can a physician make an accurate diagnosis and prescribe an effective treatment?
5. What is the key to rational treatment? And what is the key to diagnosis?

II. For each blank space, supply an appropriate word that completes the sentence.

1. Symptoms are _____ phenomena, while signs are _____ ones.
2. A physician must be familiar with the _____ so that he can detect which signs and symptoms are _____.
3. The medical history includes not only the history of the _____ illness but also all _____ illnesses and injuries.
4. The history is an _____ part of the physician's study of his patient for the rest of his days of practice.
5. An adequate history is the key to accurate diagnosis, which, in _____, is the key to rational treatment.
6. The combined data obtained in the history and examination will serve as a _____ for additional diagnostic procedures.
7. Some patients either minimize or _____ to recognize important symptoms.
8. Most patients consider all of their symptoms to be abnormal, which in turn gives them reason for _____.
9. Any of all previous illnesses and injuries may have an important _____ on the present illness.
10. An adequate history permits the physician to _____ the physical findings with the information previously acquired.

III. For each blank space, supply the correct form of each verb given in brackets.

1. With all the information _____, the physician is usually able to determine the exact nature of the _____ disease and prescribe an effective treatment. (gather / offend)
2. Some patients fail to report the presence of blood in their stools because they interpret this as _____ due to hemorrhoids. (be)
3. What is really meant by a _____ symptom? (give)

4. A physician must be able to communicate his understanding of each symptom to all persons _____ with the patient's care. (associate)
5. An experienced physician is able to elicit symptoms, to establish a correct diagnosis and to institute _____ therapy. (indicate)
6. A decision _____ on abundant evidence is a more intelligent one. (base)
7. History-_____ is no simple task. (take)
8. It is essential that the physician _____ himself with the normal so that he can detect which signs and symptoms are abnormal. (familiarize)

3. Physical Examination

The four classical techniques of the physical examination are inspection, palpation, and auscultation. These will be described separately and should, in general, be performed one at a time in sequence. A suggested pattern of examination of each body region will be presented and the student should learn each of these. Measurement and instrumentation are, in fact, not separate techniques but are methods involving amplification of the examiner's senses by use of equipment to assist in patient evaluation.

With certain major exceptions, the right and left sides of the body are nearly symmetrical. The heart extends into the left hemithorax much more than into the right. The liver lies in the right upper portion of the abdomen, the stomach and spleen in the left upper, and on both sides these organs are covered by the thoracic cage. Thus, the examiner will find normal asymmetry in his examination of both the thorax and upper abdomen. In the remainder of the body, symmetry is to be expected, and abnormalities may be identified by comparing one side of the patient with the other. There are slight deviations from side to side which fall within the normal range, so the observer must not expect perfect symmetry but must learn by experience when deviation is to be considered abnormal and therefore significant.

There is no single, perfect, "right" way to do a physical examination and various patterns are used by different practitioners. No matter what the exact sequence may be, however, no physical examination is adequate which neglects to examine each area and region by all of the necessary techniques. It should be an absolute rule, however, that inspection of the part to be examined should always come first.

An important part of the physical examination is the evaluation of function of the part or organ as well as examination for anatomical change. For instance, in the examination of the head and neck, the facial muscles are tested for strength and symmetry of motion, the eyes for motion and vision, the ear for hearing, the jaw for motion, the tongue for motion, the pharynx for swallowing, etc.

Most of what we have learned in life has come through our sense of sight and a great deal of the data on which a diagnosis will be based will come from inspection. It is a

psychological truth, however, that we perceive more of what we look for than what we look at. Skill in inspection will come in learning what to look for and how to observe carefully.

The master detective, Sherlock Holmes, used to astound Dr. Watson with his deductions based on observation. In one of the stories, Holmes, in explaining the principle involved, asked Watson how many steps there were on the stairway leading to their flat. When the doctor admitted that he did not know, Holmes pointed out that while Watson had seen those steps for years, he had never observed them. We all see all there is to see, but the trained eye observes, and that is the essence of inspection in physical examination.

Adequate lighting and adequate exposure of the area to be observed are the only additions that are ordinarily necessary to assist the observer in inspection.

Notes to the Text

1. one at a time in sequence: one following another in order of succession 逐个, 依次
2. asymmetry: lack of symmetry, or lack of proportion between the parts of a thing 不对称
3. deviation: turning aside or away, or departure (from) 偏离, 偏差
4. practitioner: one engaged in the practice of medicine 开业医生
5. It is a psychological truth, however, that we perceive more of what we look for than what we look at: 然而, 心理学方面的真理是: 我们对有心寻找的东西理解得多于仅仅双眼看到的東西。
6. Sherlock Holmes and Dr. Watson: 福尔摩斯和华生医生 (the two main characters in a series of detective stories written by an English author, Doyle, Sir Arthur Conan)
7. astound: to shock with surprise 使大吃一惊
8. We all see all there is to see, but the trained eye observes 人人都能看见凡可看到的一切, 可是只有经过训练的眼睛才能察觉一切。

Comprehension Exercises

- I. Answer the following questions.
 1. What are the four classical techniques of the physical examinations?
 2. What procedure should always come first during physical examination?
 3. What is the essence of inspection in physical examination?
 4. What do you think is the most important distinguishing feature of a police detective? What about a physician?
- II. For each blank space, supply an appropriate word that completes the sentence wi-

without looking back at the text.

1. The four _____ techniques of the physical examination are inspection, palpation, percussion, and auscultation.
2. These techniques should, in general, be performed one at a time in _____.
3. With certain major exceptions, the right and left sides of the body are nearly _____.
4. There is no _____, perfect, "right" way to do a physical examination and various patterns are used by different _____.
5. A great deal of the data on which a diagnosis will be based will come from _____.
6. We all see all there is to see, but the trained eye observes, and that is the _____ of inspection in physical examination.
7. In the _____ of the body, symmetry is to be expected, and _____ may be identified by comparing one side of the patient with the other.
8. The observer must not expect perfect symmetry but must learn by _____ when deviation is to be considered abnormal and therefore _____.

III. From the list of words at the top, select the correct word or phrase for each blank space.

departures surprise become aware of assessment concerned
apartment confessed deduction fails whatever induction

1. The master detective, Sherlock Holmes, used to _____ Dr. Watson with his deductions based on observation.
2. When the doctor _____ that he did not know, Holmes pointed out that while Watson had seen those steps for years, he had never observed them.
3. The process of reasoning from general to particular is known as _____ while that from particular (instances) to general (law) as _____.
4. There are slight _____ from side to side which fall within the normal range,
5. In explaining the principle _____, Holmes asked Watson how many steps there were on the stairway leading to their _____.
6. It is a psychological truth, however, that we _____ more of what we look for than what we look at.
7. _____ the exact sequence may be, however, no physical examination is adequate which _____ to examine each area and region by all of the necessary techniques.
8. The _____ of function of the part or organ is also an important part of the physical examination.

4. INTENSIVE CARE UNIT (ICU)

The evolution of the intensive care unit began early in the 1960s. Nearly all units were in large metropolitan hospitals. During this decade the number increased so that now even the small rural hospitals have a few beds set aside for the care of critically ill patients. The nurse-patient ratio has been kept low, and nurses have been given extensive training to prepare them to provide expert nursing care and to meet any emergency that might arise. Today the number of beds has increased, and the numbers and kinds of patients admitted to ICU have also increased. A patient is admitted to ICU because he is in need of intensive nursing and medical care, which it is assumed cannot be given on the regular clinical units. According to one author, all nursing, whether in ICU or on the clinical unit, should be practiced as intensive nursing care. Doctors believe that a large number of diseases and disorders are a potential threat to the life of the individual and that when vital processes are compromised, intensive nursing and medical care may maintain those processes until the inner resources of the human body can effectively take control.

Many of the larger hospitals have discovered that the increasing number of patients whose lives may be saved cannot be cared for adequately in a single unit. The trend is developing toward establishing separate intensive care units for specific kinds of patients, that is, burn units, shock units, coronary care units, respiratory care units, neurosurgical units, pediatric care units, and renal care units. Nurses assigned to each unit will be highly trained as clinical specialists in their particular area. However, this trend is not accepted by all hospitals, and most of the smaller ones will continue to care for patients in a single unit.

Nursing personnel in the ICU should include the head nurse who is responsible for the nursing care given to all patients. The head nurse organizes and plans the work, assigns duties, and supervises all personnel in the unit. Nurses, nursing aides, orderlies, and inhalation therapists may participate in patient care in the ICU. The head nurse is responsible for seeing that all equipment is in working order and that all drugs, supplies, and emergency equipment are always available. The action of drugs administered to a patient, the route for administration of each one, and its dosage, effect, contraindications, and side effects must be understood. Emergencies must be anticipated and appropriate action taken before the physician arrives. Intravenous infusions and oxygen must be started, and the patient may be defibrillated if the nurse is trained in this procedure in the event of ventricular fibrillation. The nurse may also set up and record an electrocardiogram, carry out closed-chest massage, and use a respirator when respiratory assistance is needed. The nurse may give general nursing care and may assign such nursing care to others in the unit. ICU nursing is individualized nursing care

and is much more than sitting at a desk in front of a monitor.

A trained inhalation therapist should be a member of the ICU team. This specialist has become increasingly important in helping to maintain inhalation equipment and its proper functioning and in the proper administration of various types of respiratory therapy by continuously monitoring ventilators and supervising the administration of oxygen or aerosol therapy.

The ICU is frequently the scene of crisis situations, and personnel must be able to use good judgment and make accurate decisions quickly in any emergency. They must be able to encourage and support the patient with a warm feeling and a devoted attitude. They must be able to meet with members of the patient's family and convey to them their interest in the patient, the necessity of certain procedures, and how they help the patient.

Visitors are strictly limited in the ICU. Usually only close members of the family are permitted to visit for not more than 5 minutes at a time. All extraneous diversions such as flowers, radios, televisions, telephones, and food are prohibited. When the patient's condition improves so that continuous care is no longer needed, he is transferred to a room on a clinical unit.

Notes to the Text

1. set aside: to save for future use, or to reserve (留出, 拨出), e.g. He set aside part of his income for future use.
2. it is assumed: it is supposed 据认为
3. When vital processes are compromised: Here 'compromise' = affect or involve unfavorably (损害, 危害, 连累), e.g. You must not compromise your reputation by not keeping your promise.
4. diversion: recreation, amusement 消遣, 娱乐

Comprehension Exercises

- I. Answer the following questions.
 1. What is the current trend in the care of specific kinds of patients?
 2. What medical personnel is the ICU team composed of?
 3. What is required of nurses working in the ICU? What about an inhalation therapist?
 4. How does ICU differ from an ordinary clinical unit?
- II. For each blank space, supply an appropriate word that completes the sentence without looking back at the text.
 1. Nearly all intensive care units were in large _____ hospitals.
 2. Now even the small rural hospitals have a few beds set aside for the care of

- _____ ill patients.
3. Nurses in the ICU must be able to meet any emergency that might _____.
 4. A large number of diseases and disorders are a _____ threat to people's health and life.
 5. An increasing number of patients cannot be cared for _____ in a single unit.
 6. The trend is developing toward establishing _____ intensive care units for _____ kinds of patients.
 7. Nurses _____ to each intensive care unit will be highly trained.
 8. The head nurse organizes and plans the work, assigns duties, and _____ all personnel in the unit.
 9. ICU nursing is _____ nursing care.
 10. Personnel in the ICU must be able to use good _____ and make accurate _____ quickly in any emergency.

III. From the list of words at the top, select the best word or words for each blank space.

reserved site affected development merely cope with tendency
case making sure encounter

1. Now even small rural hospitals have a few beds _____ for the care of seriously ill patients.
2. When vital processes are _____, intensive nursing and medical care may maintain those processes until the inner resources of the human body can effectively take control.
3. The _____ of the intensive care unit began early in the 1960s.
4. The ICU is frequently the _____ of crisis situations.
5. Nurses have been given extensive training to prepare them to provide expert nursing care and to _____ any emergency that might happen.
6. ICU nursing is not _____ sitting at a desk in front of a monitor.
7. Personnel in the ICU must be able to _____ members of the patient's family and convey to them their interest in the patient, the necessity of certain procedures, and how they help the patient.
8. The head nurse is responsible for _____ that all equipment is in working order and that all drugs and supplies are always available.
9. Intravenous infusion and oxygen must be started, and the patient may be defibrillated if the nurse is trained in this procedure in _____ of ventricular fibrillation.
10. However, this _____ is not accepted by all hospitals, and most of the smaller ones will continue to care for patients in a single unit.

5. DISINFECTION AND STERILIZATION

The following terms are often used erroneously and sometimes interchangeably. The student must learn to use them correctly.

Disinfection

This is any process that kills pathogenic organisms. The term is easily understood by simply separating the word into “dis” and “infect”. It is sometimes used incorrectly as a synonym for sterilization. An example of disinfection (but not sterilization) by heat is the pasteurization of milk. This destroys the pathogenic organisms present in milk. The milk is disinfected; however, it is not sterile since it still contains many living, though harmless, microorganisms, as is evidenced by the putrefaction of pasteurized milk. Another example of disinfection without sterilization is the use of iodine or other disinfectant on the skin in preparation for surgery. The application of a suitable chemical on the skin destroys most harmful bacteria present on the surface, but because of the layered and pitted structure of the skin, and the presence of bacteria as well as spores under the layers and in the hair follicles, such disinfectants never achieve absolute freedom from microorganisms. In careful surgical procedures the surgeon discards the scalpel he has used to cut through the outer skin and then uses a second, sterile scalpel for cutting underlying tissues.

Disinfectant

A disinfectant is any agent, such as heat (nonsporocidal temperatures of from 60 C to 80 C) or short periods (3 to 10 min.) of boiling or a chemical like iodine or phenol (carbolic acid), that kills pathogenic microorganisms, i.e., organisms that infect. The term generally applies to preparations, usually liquids, intended for use on inanimate objects, as distinguished from living tissues. Liquid chemical disinfectants are not expected to kill bacterial spores and rarely do so. This is an important fact and should never be forgotten or overlooked. A germicide is essentially the same as a disinfectant. A bactericide is similar to a germicide, but it is restricted to bacteria and does not affect their spores. A fungicide kills fungi, a virucide inactivates viruses, and a suicide does away with himself.

Sterilization

This is achieved by any process that completely removes or destroys all living organisms in or on an object. Any process designed to sterilize must be adequate to destroy bacterial spores. Few chemical methods of inhibiting and killing microorganisms are