

全国高等医药院校试用教材  
(供医学、中医、儿科、口腔、卫生专业用)

# 英 语

第 四 册

口 腔 分 册

上海第二医学院 主编

人 民 卫 生 出 版 社

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主 编 单 位

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西安医学院 南京医学院

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# 1. The Deciduous<sup>1</sup> and Permanent<sup>2</sup> Teeth

## The Deciduous Teeth

At birth<sup>3</sup>, the individual has no functioning teeth in the mouth. Radiograms<sup>4</sup> of the infant<sup>5</sup>'s jaws<sup>6</sup>, however, would<sup>①</sup> show many teeth in various stages of the process of formation<sup>7</sup>. Since the diet in early infancy<sup>8</sup> is entirely fluid, the deciduous dentition<sup>9</sup> is not required until the child needs solid food<sup>②</sup>.

The denomination<sup>10</sup> and number of teeth for all Mammalia<sup>11</sup> are expressed<sup>12</sup> by formulae<sup>13</sup>. The denomination of each tooth is represented<sup>14</sup> by an initial<sup>15</sup> letter<sup>16</sup> (I, C, M, etc.); each letter is then followed by a horizontal<sup>17</sup> line, and the number of each type of tooth goes above the line for the maxilla and below the line for the mandible<sup>18</sup>. The formula includes one side only;

The deciduous dental formula of man is;

$$I \frac{2}{2} C \frac{1}{1} M \frac{2}{2} = 10$$

This formula should<sup>③</sup> be read thus<sup>19</sup>: Incisors<sup>20</sup>, two upper and two lower; canines<sup>21</sup>, one upper and one lower; molars<sup>22</sup>, two upper and two lower—or ten altogether<sup>23</sup> on one side, right or left.

The incisors are designed<sup>24</sup> for cutting, the canines or cuspids<sup>25</sup> have a pointed<sup>26</sup> cusp<sup>27</sup> for tearing<sup>28</sup> and incision<sup>29</sup>, whereas<sup>30</sup> the molars have broad<sup>31</sup> occlusal<sup>32</sup> surfaces<sup>33</sup> with multiple<sup>34</sup> cusps which are more efficient<sup>35</sup> in reducing<sup>36</sup> food material as an aid in the digestive process.

## The Permanent Teeth

By the time the child is about six years of age, the first permanent teeth (the first molars) appear in the upper and lower jaws which have now become large enough to accommodate<sup>37</sup> them<sup>④</sup>. One by one<sup>⑤</sup> the deciduous teeth are exfoliated<sup>38</sup>, from the seventh year on, by a natural process brought about by resorption of their roots. Succedaneous<sup>39</sup> permanent teeth take their places<sup>⑥</sup> at the proper time. When the jaws have grown sufficiently, two additional<sup>40</sup> molars are added posteriorly to the first molars.

The permanent dental formula of man is;

$$I \frac{2}{2} C \frac{1}{1} P \frac{2}{2} M \frac{3}{3} = 16$$

Premolars or bicuspid<sup>41</sup>s have now been added to the formula, two upper and two lower, and a third molar has been added, one upper and one lower.

From the above<sup>⑦</sup> we make the observation that<sup>⑧</sup> the child has twenty deciduous

teeth, and the adult<sup>⑨</sup> thirty-two permanent teeth.

## Word List

- |  |   |
|--|---|
| 1. deciduous [di'sidjuəs] <i>a.</i> 暂时的<br>~ teeth 乳牙          | 24. design [di'zain] <i>v.</i> 计划; 设计                 |
| 2. permanent ['pə:mənənt] <i>a.</i> 永久的<br>~ teeth 恒牙          | 25. cuspid ['kʌspid] <i>n.</i> 尖牙, 犬牙                 |
| 3. birth [bɜ:θ] <i>n.</i> 出生; 分娩                               | 26. pointed ['pɔɪntɪd] <i>a.</i> 尖的                   |
| 4. radiogram ['reɪdiəʊgræm] <i>n.</i> 射线<br>照片                 | 27. cusp [kʌsp] <i>n.</i> (牙) 尖, 尖端                   |
| 5. infant ['ɪnfənt] <i>n.</i> 婴儿, 幼儿                           | 28. tear [tɜ:(tore [tɔ:]; torn [tɔ:n])] <i>v.</i> 撕裂  |
| 6. jaw [dʒɔ:] <i>n.</i> 颌骨                                     | 29. incision [ɪn'sɪʒən] <i>n.</i> 切开                  |
| 7. formation [fɔ:'meɪʃən] <i>n.</i> 形成                         | 30. whereas [hwɛər'æz] <i>conj.</i> 而                 |
| 8. infancy ['ɪnfənsɪ] <i>n.</i> 婴儿期; 初期                        | 31. broad [brɔ:d] <i>a.</i> 宽的, 广阔的                   |
| 9. dentition [den'tɪʃən] <i>n.</i> 出牙; 牙列                      | 32. occlusal [ɒ'klu:sl] <i>a.</i> 殆(面)的, 咬合(面)的       |
| 10. denomination [dɪnəmi'neɪʃən] <i>n.</i> 名称; 种类              | 33. surface ['sɜ:fɪs] <i>n.</i> 面, 表面                 |
| 11. Mammalia [mæ'meɪljə] <i>n.</i> 哺乳纲                         | 34. multiple ['mʌltɪpl] <i>a.</i> 多样的; 复合的            |
| 12. express [ɪks'pres] <i>v.</i> 表示, 表达                        | 35. efficient [ɪ'fɪʃənt] <i>a.</i> 有能力的, 能胜任的         |
| 13. formula ['fɔ:mjʊlə] (复 formulae ['fɔ:mjuli:]) <i>n.</i> 公式 | 36. reduce [ri'dju:s] <i>v.</i> 把...弄碎; 减少            |
| 14. represent [reprɪ'zent] <i>v.</i> 代表; 描述                    | 37. accommodate [ə'kɒmədeɪt] <i>v.</i> 容纳; 接纳         |
| 15. initial [ɪ'nɪʃəl] <i>a.</i> 词首的; 最初的                       | 38. exfoliate [eks'fəʊliet] <i>v.</i> 剥落              |
| 16. letter ['letə] <i>n.</i> 字母; 信                             | 39. succedaneous [sʌksɪ'deɪniəs] <i>a.</i> 代替的        |
| 17. horizontal [hɒrɪ'zɒntl] <i>a.</i> 水平的, 横的                  | 40. additional [ə'dɪʃənəl] <i>a.</i> 另外的; 附加的         |
| 18. mandible ['mændɪbl] <i>n.</i> 下颌骨                          | 41. premolar [pri'məʊlə] <i>n.</i> , <i>a.</i> 前磨牙(的) |
| 19. thus [ðʌs] <i>ad.</i> 这样, 如此                               | 42. bicuspid [baɪ'kʌspɪd] <i>n.</i> 双尖牙               |
| 20. incisor [ɪn'saɪzə] <i>n.</i> 切牙, 门牙                        |   |
| 21. canine ['keɪnəɪn] <i>n.</i> 尖牙, 犬牙                         |   |
| 22. molar ['məʊlə] <i>n.</i> 磨牙                                |   |
| 23. altogether [ɔ:l'tə'geðə] <i>ad.</i> 总共                     |   |

## Notes

1. would 在这里不是助动词 will 的过去式, 而用作情态动词, 表示“应当会...”, 语气比 will 婉转些。
2. 本句由一个主句和二个从句组成。主句是 the deciduous dentition is not required. 二个状语从句分别由 since (因为) 和 until 引导。
3. should 在这里不是助动词 shall 的过去式, 而用作情态动词, 表示“应当...”。

例如: We *should* do our best to serve the people. 我们应当尽力为人民服务。

4. large enough to accommodate them 大得足够容纳他们 enough 常与不定式连用, 说明形容词, 表示程度的意思。

例如: He is old enough to take care of himself. 他已长大得可以自己照顾自己了。

5. one by one 一个一个地

6. take (one's) place 代替 (...) 注意和 take place (发生, 举行) 的区别。

The operation *took place* yesterday. 手术昨天进行的。

7. the above 上述 这里 above 用作名词。

8. that 引导的是同位语从句, 同位于 observation。

9. the adult 后省略了动词 has。

## 1. 乳牙和恒牙

**乳牙:** 一个人在出生时, 嘴内没有起着作用的牙齿。但婴儿颌骨X线照片可显示各发育不同时期的许多牙齿。由于婴儿早期食物全是流质, 直到需要吃固体食物之前, 是不需要乳牙的。

所有哺乳动物牙齿的名称和数目, 通过公式来表示。每颗牙的名称, 用第一个字母来代表 (I、C、M等), 每个字母的旁边是一条横线, 线以上是每种上颌牙的数目, 线以下是每种下颌牙的数目。这个公式仅包括一侧牙列。

人类乳牙的公式是:

$$I \frac{2}{2} C \frac{1}{1} M \frac{2}{2} = 10$$

这个公式应读为: 切牙, 上下颌各 2; 尖牙, 上下颌各 1; 磨牙, 上下颌各 2; 一侧 (右侧或左侧) 牙齿数目共计 10 颗。

切牙用来切割, 尖牙有一个牙尖用来撕裂和切割, 而磨牙有一个宽阔的殆面和几个牙尖, 这些都能更有效地捣碎食物, 以帮助食物的消化。

**恒牙:** 儿童到了六岁左右, 其上、下颌就萌出最初几颗恒牙 (第一磨牙), 此时颌骨已长大, 足以容纳它们。从七岁开始, 经过牙根被吸收的自然过程, 乳牙逐一脱落。替代它们的恒牙在适当的时候萌出。当颌骨已充分发育, 第二、第三磨牙即在第一磨牙的后边相继萌出。

人类恒牙公式是:

$$I \frac{2}{2} C \frac{1}{1} P \frac{2}{2} M \frac{3}{3} = 16$$

前磨牙或叫双尖牙也加到这个公式里, 2 上 2 下; 第三磨牙也加进去了, 1 上 1 下。

从上所述, 我们可以看到儿童有 20 颗乳牙, 成人有 32 颗恒牙。

## 2. The Crown<sup>1</sup> and Root

Each tooth has a crown and root portion. The crown is covered with enamel<sup>2</sup>, and



the root portion is covered with cementum<sup>3</sup>. The crown and root join at the cemento-enamel<sup>4</sup> junction<sup>5</sup>. This junction, also called the cervical<sup>6</sup> line, is plainly<sup>7</sup> visible on a specimen<sup>8</sup> tooth. The main bulk<sup>9</sup> of the tooth is composed of dentin<sup>10</sup>, which is evident<sup>11</sup> in a cross-section<sup>12</sup> of the tooth. This cross-section displays<sup>13</sup> a pulp<sup>14</sup> chamber<sup>15</sup> and a pulp canal which normally accommodate the pulp tissue. The pulp chamber is within the confines<sup>16</sup> of the crown, and the pulp canal is within the root portion. Both spaces are continuous with each other; spoken of collectively<sup>17</sup>, they are called the pulp cavity.

The four tooth tissues mentioned are the enamel, cementum, dentin and pulp. The first three are known as hard tissues, the last<sup>①</sup> as soft tissue. The pulp tissue furnishes<sup>18</sup> some of the blood and nerve supply to the tooth.

The crown portion of a tooth may present an incisal ridge<sup>19</sup> or edge (for example, the central and lateral incisors, maxillary<sup>20</sup> and mandibular<sup>21</sup>); a single cusp<sup>②</sup>, which is found on canines; or two or more cusps<sup>③</sup>, as found on premolars and molars<sup>④</sup>. Incisal ridges and cusps form the cutting surfaces on tooth crowns.

The root portion of the tooth may be single, with one apex<sup>22</sup> or terminal<sup>23</sup> end as found in normal anterior<sup>24</sup> teeth and some of the premolars; or multiple<sup>⑤</sup>, with a bifurcation<sup>25</sup> or trifurcation<sup>26</sup> dividing the root portion into two or more extensions<sup>27</sup> or roots with their apices or terminal ends, as found on all molars (normally) and on some premolars (bifurcation).

The root portion of the tooth is firmly<sup>28</sup> fixed<sup>29</sup> in the bony process of the jaw. That portion of the jaw which serves as a support for the tooth is called the alveolar<sup>30</sup> bone or alveolar process. The tooth "socket"<sup>31</sup> in which the tooth rests<sup>⑥</sup> is called the alveolus<sup>32</sup>.

The crown portion is never covered by bone tissue after it is fully erupted<sup>33</sup>, but it is partly covered at the cervical third by soft tissue of the mouth known as the gingiva<sup>34</sup> or gingival<sup>35</sup> tissue, or gum<sup>36</sup> tissue.

## Word List

- |  |   |
|--|---|
| 1. crown [kraun] <i>n.</i> 牙冠                      | 9. bulk [bɔlk] <i>n.</i> 大部分; 大多数; 容积         |
| 2. enamel [i'næmə] <i>n.</i> 釉质, 珐琅质               | 10. dentin ['dɛntɪn] <i>n.</i> 牙本质            |
| 3. cementum [si'mentəm] <i>n.</i> 牙骨质              | 11. evident ['evidənt] <i>a.</i> 明显的          |
| 4. cemento-enamel [si'mentə i'næmə] <i>n.</i> 釉牙骨质 | 12. cross-section [krɒs'sekʃən] <i>n.</i> 横切面 |
| 5. junction ['dʒʌŋkʃən] <i>n.</i> 连接, 接界           | 13. display [dis'plei] <i>v.</i> 显示, 表现       |
| 6. cervical ['sə:vɪkəl] <i>a.</i> 颈的               | 14. pulp [pʌlp] <i>n.</i> 牙髓, 髓               |
| 7. plainly ['pleɪnli] <i>ad.</i> 明显地, 清楚地          | 15. chamber ['tʃeɪmbə] 腔, 室                   |
| 8. specimen ['spesɪmɪn] <i>n.</i> 标本, 样本           | 16. confine ['kɒnfəɪn] <i>n.</i> (常用复) 境      |

界, 区域, 范围

叉, 分成三枝

- |   |   |
|---|---|
| 17. collectively [kə'lektivli] <i>ad.</i> 共同地, 集体地            | 27. extension [iks'tenʃən] <i>n.</i> 延长部分, 扩大部分               |
| 18. furnish ['fə:nɪʃ] <i>v.</i> 供应, 提供                        | 28. firmly ['fə:mli] <i>ad.</i> 稳固地, 牢固的                      |
| 19. ridge [ridʒ] <i>n.</i> 嶂                                  | 29. fix [fiks] <i>v.</i> 使固定                                  |
| 20. maxillary ['mæksiləri] <i>a.</i> 上颌的                      | 30. alveolar [æl'viələ] <i>a.</i> 牙槽的                         |
| 21. mandibular [mæn'dibjulə] <i>a.</i> 下颌(骨)的                 | 31. socket ['sɒkit] <i>n.</i> 臼; 槽; 窝                         |
| 22. apex ['eɪpeks] (复 apices ['eɪpisi:z]) <i>n.</i> 尖, 尖端, 顶点 | 32. alveolus [æl'viələs] (复 alveoli [æl'viələi]) <i>n.</i> 牙槽 |
| 23. terminal ['tə:minl] <i>a.</i> 末端的                         | 33. erupt [i'rʌpt] <i>v.</i> (牙齿) 萌出                          |
| 24. anterior [æn'tiəriə] <i>a.</i> 前面的                        | 34. gingiva [dʒin'dʒaivə] <i>n.</i> 龈                         |
| 25. bifurcation [baɪfə:'keɪʃən] <i>n.</i> 双叉, 分为二枝            | 35. gingival [dʒin'dʒaivəl] <i>a.</i> 龈的                      |
| 26. trifurcation [traɪfə:'keɪʃən] <i>n.</i> 三                 | 36. gum [gʌm] <i>n.</i> (牙) 龈                                 |

## Notes

1. the last 后省略了 is known.
2. a single cusp 是前面动词 present [pri'zent] 的宾语。
3. two or more cusps 也是 present 的宾语。
4. as found on premolars and molars 是定语从句, found 前省略了 is, as 代替整个主句。
5. multiple 作表语, 与前面的表语 single 是并列成分。
6. rests 在这里用作动词 (现在时、单数、第三人称), 不是名词, 意思是“搁(在)”或“停留(在)”。

## 2. 牙冠和牙根

每一颗牙都有一个牙冠和牙根。牙冠外覆盖着釉质, 牙根外覆盖着牙骨质。冠和根在釉质和牙骨质交界处连接。这个交界线又叫做牙颈线, 在离体牙上可以清楚地被看到。牙齿大部分由牙本质组成, 在牙齿的横切面上这一点是明显的。横切面还显示出在正常时内有髓组织的髓室及髓管。髓室局限于牙冠内, 而髓管则在牙根内。二者相连, 它们被统称为髓腔。

已经讲到的牙齿四层组织是釉质、牙骨质、牙本质和牙髓。前面三种称为硬组织, 最后一种是软组织。髓组织供应牙齿血液和神经。

牙齿的牙冠可以有一个切嵴或叫切缘 (例如上、下颌中切牙和侧切牙), 可以是单尖的, 如尖牙, 也可以是双尖或多尖的, 如前磨牙和磨牙。切嵴和牙尖在牙冠上形成一个切面。

牙齿的牙根可以是单根, 有一个根尖, 正象在正常的前牙和一些前磨牙所看到的那样, 也可以是多根, 在根部经分叉成二根型或三根型, 正如在所有的磨牙 (正常的) 和

部分前磨牙(双根型)所看到的。

牙齿的牙根牢固地种植在颌骨的骨突里边。颌骨用作支撑牙齿的那部分叫做牙槽骨或叫牙槽突。牙齿所在的“窝”叫做牙槽。

在牙齿完全萌出之后,牙冠部分没有骨组织覆盖,但牙颈三分之一覆盖着叫做牙龈的口腔软组织。

### 3. Surfaces and Ridges of the Teeth

The crowns of the incisors and canines present for examination four surfaces and a ridge<sup>①</sup>, and the crowns of the premolars and molars, five surfaces<sup>②</sup>. The surfaces are named according to their positions and uses. Central and lateral incisors and canines are called anterior teeth; premolars and molars are called posterior teeth. Those surfaces of the incisors and canines facing<sup>1</sup> toward the lips<sup>2</sup> are called labial<sup>3</sup> surfaces, those surfaces of the premolars and molars facing toward the cheek, buccal<sup>4</sup> surfaces<sup>③</sup>. When labial and buccal surfaces are spoken of collectively they are called facial<sup>5</sup> surfaces. All surfaces facing toward the tongue are called lingual<sup>6</sup> surfaces. The surfaces of the teeth which come in contact with<sup>④</sup> those in the opposite<sup>7</sup> jaw during the act of closure<sup>8</sup> are called occlusal surfaces. In order to be more specific, those surfaces on the incisors and canines are called incisal surfaces.

The surfaces of the teeth which are presented toward or lie against adjoining<sup>9</sup> teeth in the same dental arch are called proximal<sup>10</sup> or proximate surfaces. The proximal surfaces are more clearly defined by the terms mesial<sup>11</sup> and distal<sup>12</sup>. These terms have special reference<sup>13</sup> to<sup>⑤</sup> the position of the surface relative to<sup>⑥</sup> the median<sup>14</sup> line of the face. This line is drawn vertically<sup>15</sup> through the center of the face, passing between the central incisors at their point of contact with each other in both the upper and lower jaw. Those proximal surfaces which are faced toward the median line are called mesial surfaces, and those most distant<sup>16</sup> from the median line are called distal surfaces.

Four teeth have mesial surfaces which contact each other: the maxillary and mandibular central incisors. In all other instances the mesial surface of one tooth contacts the distal surface of its neighbor<sup>17</sup>. By the same token<sup>⑦</sup> <sup>18</sup>, a distal surface of one tooth contacts the mesial surface of another, except for<sup>⑧</sup> the distal surfaces of third molars (upper and lower) of permanent teeth and distal surfaces of second molars in deciduous teeth, which examples have no contacting teeth distal to them.

The area of the mesial or distal surface of a tooth which comes in contact with its neighbor in the arch is called the contact area, often erroneously<sup>19</sup> called the “contact point”. This term “contact point”, or “point of contact” should be used only where referring to the area of contact in a general way<sup>⑨</sup> when one<sup>⑩</sup> is describing the teeth or their alignment<sup>20</sup> and occlusion. It must be kept in mind<sup>⑪</sup> always that because

of<sup>②</sup> their irregular form, one tooth in the arch will touch its neighbor in more than a single point, hence<sup>21</sup> contact “area”.

### Word List

- |  |  |
|--|--|
| 1. face [feɪs] <i>v.</i> 面对; 向               | 12. distal ['distl] <i>a.</i> 远中的                  |
| 2. lip [lɪp] <i>n.</i> 唇                     | 13. reference ['refrəns] <i>n.</i> 参考              |
| 3. labial ['leɪbiəl] <i>a.</i> 唇的            | 14. median ['mi:djən] <i>a.</i> 在中间的, 通过中间的        |
| 4. buccal ['bʌkəl] <i>a.</i> 颊的              | 15. vertically ['vɜ:tɪkəli] <i>ad.</i> 垂直地         |
| 5. facial ['feɪʃəl] <i>a.</i> 脸的             | 16. distant ['dɪstənt] <i>a.</i> 远的                |
| 6. lingual ['lɪŋgwəl] <i>a.</i> 舌的           | 17. neighbor ['neɪbə] <i>n.</i> 邻居, 邻接物            |
| 7. opposite ['ɒpəzɪt] <i>a.</i> 相对的, 对面的     | 18. token ['təʊkən] <i>n.</i> 标志; 记号; 表示           |
| 8. closure ['kləʊʒə] <i>n.</i> 闭合, 关闭        | 19. erroneously [ɪ'rouniəsli] <i>ad.</i> 错误地, 不正确地 |
| 9. adjoining [ə'dʒɔɪnɪŋ] <i>a.</i> 邻接的       | 20. alignment [ə'laɪnmənt] <i>n.</i> 组合            |
| 10. proximal ['prɒksɪməl] <i>a.</i> 近侧的, 邻近的 | 21. hence [hens] <i>ad.</i> 由此, 因此                 |
| 11. mesial ['mi:ʒjəl] <i>a.</i> 近中的          |  |

### Notes

1. four surfaces and a ridge 作前面动词 present 的宾语。
2. five surfaces 前省略了动词 present。注意有时在省略了某成分的地方用一逗号。例如本句中 and the crowns of the premolars and molars, five surfaces。写完全应是 and the crowns of the premolars and molars present five surfaces。
3. buccal surfaces 前省略了 are called。
4. come in (into) contact with... 与...接触
5. have reference to... 和...有关系
6. relative to... 和...有关
7. by the same token 同样, 同理
8. except for... 除...外, 若无...
9. in a general way 概括地
10. one 在这里“泛指”人。意思是“一个人”、“人人”、“人们”等。  
One must always be modest.  
一个人应当永远是谦虚的。
11. keep...in mind (被动语态 be kept in mind) 记住, 考虑到
12. because of... 由于..., 因为...

### 3. 牙齿的面和切嵴

检查切牙和尖牙的牙冠有四个面和一个切嵴, 前磨牙和磨牙的牙冠有五个面。这些面是按照它们的位置和功用来命名的。中切牙和侧切牙和尖牙叫前牙, 前磨牙和磨牙叫后牙。切牙和尖牙向着唇部的面叫唇面, 前磨牙和磨牙向着颊部的面叫颊面。唇面和颊

面合称为颜面。所有向着舌部的各个面都叫做舌面。在（口腔）闭合时，上下颌牙齿的接触面叫殆面。更确切地说，切牙和尖牙的这种接触面叫切面。

在同一牙弓中，牙齿面向或紧靠邻齿的面叫邻面。邻面用近中面和远中面这些术语来说明就更为清楚。这些名称特别说明了牙面的位置对面部中线的关系。这是通过面部中央，经过上、下颌中切牙的相互接触点的一条垂直线。靠近中线的邻接面叫近中面，远离中线的叫远中面。

有四颗牙齿有互相接触的近中面：上颌中切牙和下颌中切牙。所有的其他情况是一颗牙齿的近中面同邻牙的远中面接触。同理，除了上、下颌第三恒磨牙和第二乳磨牙的远中面没有接触以外，每一颗牙的远中面与邻牙的近中面接触。

在牙弓上，牙齿的近中面或远中面同它邻牙接触的这一区域叫接触区，一般被误称为“接触点”。仅在人们描述牙齿或它们的排列和咬合关系，概括地涉及接触区时，才应用“接触点”这个术语。必须永远记住，由于它们形状不规则，在牙弓里，单个牙齿同它的邻牙会有不止一个接触点，因而叫接触“区”。

## 4. Other Landmarks<sup>1</sup> of the Teeth

In order to study an individual tooth intelligently<sup>2</sup> one must be able to recognize<sup>3</sup> all landmarks of importance by name. Therefore at this point it will be necessary to become familiar<sup>4</sup> with additional terms such as:

cuspid	triangular <sup>8</sup> ridge	developmental <sup>13</sup> groove <sup>14</sup>
tubercle <sup>5</sup>	transverse <sup>9</sup> ridge	supplemental <sup>15</sup> groove
cingulum <sup>6</sup>	oblique <sup>10</sup> ridge	pit <sup>16</sup>
ridge	fossa <sup>11</sup>	fissure <sup>17</sup>
marginal <sup>7</sup> ridge	sulcus <sup>12</sup>	lobe

A cusp is an elevation<sup>18</sup> or mound<sup>19</sup> on the crown portion of a tooth making up<sup>①</sup> a divisional<sup>20</sup> part of the occlusal surface.

A tubercle is a smaller elevation on some portion of the crown produced by an overcalcification<sup>21</sup> of enamel. These are deviations<sup>22</sup> from the typical form.

A cingulum is the lingual lobe of an anterior tooth. Its convexity<sup>23</sup> mesio-distally<sup>24</sup> resembles a girdle<sup>25</sup> encircling<sup>26</sup> the lingual surface at the cervical third.

A ridge is any linear<sup>27</sup> elevation on the surface of a tooth and is named according to its location<sup>28</sup> or form: buccal ridge, incisal ridge, marginal ridge, etc.

Marginal ridges are those rounded elevations of the enamel which form the margins of the occlusal surfaces of premolars and molars, mesially<sup>29</sup> and distally<sup>30</sup>, and the mesial and distal margins<sup>②</sup> of the incisors and canines lingually.

Triangular ridges are those ridges which descend<sup>31</sup> from the tips<sup>32</sup> of the cusps of molars and premolars toward the central part of the occlusal surfaces. They are so named because the slopes<sup>33</sup> of each side of the ridge are inclined<sup>34</sup> to resemble two

sides of a triangle. They are named after<sup>③</sup> the cusps to which they belong; triangular ridge of the buccal cusp of the maxillary first premolar, etc.

When a buccal and a lingual triangular ridge join, they form a transverse ridge, the union<sup>35</sup> of two triangular ridges crossing transversely the surface of a posterior tooth.

The oblique ridge is a variable ridge crossing obliquely the occlusal surfaces of upper molars; it results from the junction of two triangular ridges.

A fossa is an irregular, rounded depression<sup>36</sup> or concavity<sup>37</sup> found upon the surface of a tooth. Lingual fossae are found upon the lingual surface of incisors. Central fossae are found upon the occlusal surface of molars, and are formed by the converging<sup>38</sup> of ridges terminating at a central point in the bottom of the depression where there is a junction of grooves. Triangular fossae are found on molars and premolars on the occlusal surfaces mesial or distal to marginal ridges, as the case may be<sup>④</sup>; they are sometimes found on the lingual surfaces of maxillary incisors at the edge of the lingual fossae where the marginal ridges and the cingulum meet.

A sulcus is a notably<sup>39</sup> long depression or valley<sup>40</sup> in the surface of a tooth between ridges and cusps, the inclines of which meet at an angle. A sulcus has a developmental groove at the junction of its inclines. (The term "sulcus" must not be confused<sup>41</sup> with<sup>⑤</sup> the term groove.)

A developmental groove is a shallow<sup>42</sup> groove or line denoting<sup>43</sup> evidence of coalescence<sup>44</sup> between the primary<sup>45</sup> parts of the crown or root. A supplemental groove is also a shallow linear depression on the surface of a tooth, but it is supplemental to a developmental groove and does not mark the junction of primary parts. Buccal and lingual grooves are developmental grooves found on the buccal and lingual surfaces of posterior teeth.

Fissures are linear faults<sup>46</sup> in the enamel covering of crowns. They are usually found in developmental grooves where calcification<sup>47</sup> has been incomplete.<sup>48</sup> Pit faults are small and circumscribed<sup>49</sup>, usually located at the points of junction of developmental grooves or at terminals of those grooves. Pit faults must not be confused with the term "Central pit", which is a term used to describe a landmark in the central fossae of molars where developmental grooves join; these central pits are pit faults only when calcification has been incomplete. In other words<sup>⑥</sup>, a fissure is always a fault, but a pit is not necessarily so<sup>⑦</sup>. A lobe is one of the primary centers of calcification formed in the development of the crown. Cusps and mamelons<sup>50</sup> are representative of lobes. A mamelon is one of the three rounded protuberances<sup>51</sup> found on the incisal ridges of newly erupted incisor teeth.

The roots of the teeth may be single or multiple. Anterior teeth, maxillary and mandibular, have only one root each<sup>⑧</sup>. Mandibular premolars and the second maxillary premolar are single-rooted, but the first maxillary premolar has two roots in most cases, one buccal and one lingual. Maxillary molars have three roots, one mesiobuccal, one



disto-buccal and one lingual. Mandibular molars have two roots, one mesial and one distal. It must always be kept in mind<sup>⑨</sup> that<sup>⑩</sup> description in anatomy can never follow a hard and fast rule. Variations must always be looked for<sup>⑩</sup>. This is especially true regarding tooth roots.

## Word List

1. landmark ['lændmɑ:k] *n.* 标志
2. intelligently [in'telidʒəntli] *ad.* 有理解力地
3. recognize ['rekəɡnaiz] *v.* 认识
4. familiar [fə'miljə] *a.* 熟悉的, 通晓的
5. tubercle ['tju:bə(:)kl] *n.* 结节
6. cingulum ['siŋɡjələ] (复 cingula ['siŋɡjələ]) *n.* 带; 扣带; 舌面隆突〔口〕
7. marginal ['mɑ:dʒɪnl] *a.* 缘的
8. triangular [traɪ'æŋɡjələ] *a.* 三角的
9. transverse ['trænzvɜ:s] *a.* 横的
10. oblique [ə'bli:k] *a.* 斜的
11. fossa ['fɒsə] (复 fossae ['fɒsi:]) *n.* 窝; 凹
12. sulcus ['sʌlkəs] (复 sulci ['salsai]) *n.* 沟
13. developmental [diveləp'mentl] *a.* 发育的
14. groove [ɡru:v] *n.* 沟
15. supplemental [sʌpli'mentl] *a.* 附加的; 补充的 ~groove 副沟〔口〕
16. pit [pit] *n.* 窝; 凹; 点隙〔口〕
17. fissure ['fiʃə] *n.* 裂; 裂隙; 裂纹
18. elevation [eli'veiʃən] *n.* 隆凸
19. mound [maʊnd] *n.* 耸起; 小丘
20. divisional [di'viʒnl] *a.* 分部的
21. overcalcification [ouvəkælsifi'kei-ʃən] *n.* 过度钙化
22. deviation [di:vi'eifən] *n.* 脱离; 越轨
23. convexity [kən'veksiti] *n.* 中凸, 凸状
24. mesio-distally [mi:zjə'distəli] *ad.* 近中远侧地
25. girdle ['ɡɜ:dl] *n.* 带; 托带
26. encircle [in'sə:kl] *v.* 环绕; 围绕; 包围
27. linear ['liniə] *a.* 长条形的, 线形的
28. location [lou'keiʃən] *n.* 位置
29. mesially ['mi:zjəli] *ad.* 近中地
30. distally ['distəli] *ad.* 远中地; 远侧地
31. descend [di'send] *v.* 下来, 下降
32. tip [tip] *n.* 尖; 末端
33. slope [sloup] *n.* 斜面; 斜坡
34. incline [in'klaɪn] *v.* 倾斜
35. union ['ju:njən] *n.* 连接
36. depression [di'prefən] *n.* 凹陷
37. concavity [kən'kæviti] *n.* 凹面; 成凹形
38. converge [kən'vɜ:dʒ] *v.* 聚集, 集中
39. notably ['noutəbli] *ad.* 显著地
40. valley ['væli] *n.* 凹陷处; 凹地; 谷
41. confuse [kən'fju:z] *v.* 使混乱, 混淆
42. shallow ['ʃælou] *a.* 浅的
43. denote [di'nout] *v.* 表示; 意味着
44. coalescence [kouə'lesns] *n.* 接合, 结合
45. primary ['praɪməri] *a.* 最初的
46. fault [fɔ:lt] *n.* 毛病
47. calcification [kælsifi'keiʃən] *n.* 钙化

48. incomplete [ɪnkəm'pli:t] *a.* 不完全的  
 49. circumscribe ['sə:kəmskraɪb] *v.* 限于; 限制  
 50. mamelon ['mæmelɒn] *n.* 切结; 乳头状物  
 51. protuberance [prə'tju:bərəns] *n.* 隆凸

## Notes

1. make up 组成
2. the mesial and distal margins 也是前面动词 form 的宾语。
3. name after... 以...命名
4. as the case may be 视情况而定
5. confuse...with... 把...和...相混淆  
 Do not *confuse* right with wrong.  
 不要混淆是非。
6. in other words 换句话说, 换言之
7. so 在这里代替前面的名词 a fault。so 有时也用来指前面的形容词。例如:  
 He has been very helpful to me in the past and I hope he will be so (指 helpful) in the future.  
 过去他对我很有帮助, 我希望今后也是如此。
8. each 在这里起副词作用, 作“每个”解。这种用法的 each 往往放在句末。
9. keep...in mind 记住...; 考虑到...  
 We must always *keep in mind* the Party's instructions.  
 我们必须永远记住党的教导。
10. that 引导的是主语从句, 句首的 It 是形式主语。
11. look for 寻找, 期待

## 4. 牙齿的其他标志

为了更好地研究单个牙齿, 人们必须能认识所有重要(牙体)标志的名称。因此, 现在来熟悉一些附加术语是必要的, 诸如:

牙尖	三角嵴	发育沟
结节	横嵴	副沟
舌面隆突	斜嵴	点隙
切嵴	窝	裂隙
边缘嵴	沟	叶

牙尖: 是牙冠高起的部分, 它构成殆面的一部分。

结节: 是牙冠一些部分的较小突起, 由于釉质的过度钙化所形成。这些是典型牙齿的变异。

舌面隆突: 是前牙的舌叶。它从牙体两侧凸起, 犹如一根腰带, 环绕着舌面颈部三分之一。

嵴: 是牙面上任何一种长条形的突起部分, 按照它的位置和形状来命名: 颊嵴、切

嵴、边缘嵴等等。

**边缘嵴：**是釉质的圆形突起，它形成前磨牙和磨牙殆面的近远中边缘，切牙和尖牙舌面的近远中边缘。

**三角嵴：**起于磨牙和前磨牙牙尖顶部，向殆面的中央部分延伸。它之所以这样命名，是因为其两侧坡的斜度类似三角形的两边。它们按属于哪个牙尖来命名，如上颌第一前磨牙颊尖三角嵴，等等。

当颊尖三角嵴和舌尖三角嵴相连，就形成一个横嵴；二个三角嵴的连接部分横贯于后牙的表面。

**斜嵴：**是斜向横贯上颌磨牙殆面的变异性嵴；它由二个三角嵴连接而成。

**窝：**牙面上呈不规则圆形的凹下部分叫做窝。切牙在舌面有舌窝。磨牙在殆面有中央窝，这是由嵴的末端在凹下部分底部中央聚集而成，并有沟连接。磨牙和前磨牙殆面边缘嵴的近中侧或远中侧可有三角窝，需视情况而定；它们有时也可见于上颌切牙舌窝边缘的舌面上，那里边缘嵴与舌面隆突相接。

**沟：**是牙面上嵴与牙尖间的长条形凹陷或谷，斜面集合成角。在斜面连接处有一发育沟 (groove)。(术语 sulcus 不要与术语 groove 混为一谈)

**发育沟：**是一条线形沟或线，显示牙冠和牙根发育期连接的痕迹。副沟也是牙面上一条浅的线形凹陷，但它附加于发育沟，不能说是发育部分连接的标志，在后牙的颊面和舌面有颊面发育沟和舌面发育沟。

**裂隙：**是牙冠面上釉质呈细条状的断裂层。通常见于钙化不全的发育沟。点隙是小的局限的一点，一般位于发育沟的相连处或发育沟的末端。不要把点隙同中央点混淆，那是用来描述磨牙中央窝发育沟相连处一个标志的术语；只有当已发生钙化不全时，这些中央点才是点隙。换言之，一个裂隙总是一种断层，但一个点隙不一定是这样。叶是牙冠发育时最初形成的钙化中心的一部分。牙尖和切结是叶的代表。切结是新萌出的切牙在切嵴上出现的三个圆形隆凸之一。

牙根可以是单根或多根的。每一上、下颌前牙仅有一个牙根。下颌前磨牙和上颌第二前磨牙是单根的，但上颌第一前磨牙多数有二个根，颊侧和舌侧各一。上颌磨牙有三个根，近、远中颊侧各一个根，舌侧一个根。下颌磨牙有二个根，近、远中各一个根。必须永远记住：牙体解剖学所描述的并非一成不变的规律。要经常注意变异。对于牙根来说，尤其是这样。

## 5. Histology<sup>1</sup> of the Oral Cavity and Face

No special description<sup>2</sup> of the normal structure of these tissues is necessary, though<sup>①</sup> some remarks<sup>3</sup> 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<sup>4</sup> manner, but the arrangement of the tissues is such that<sup>②</sup> a shallow sulcus is formed. This gingival sulcus<sup>5</sup> tends to collect food and debris, particularly in the absence of<sup>③</sup> adequate oral hygiene, and this