



## 牙齿/口腔健康问题

# 猫犬牙龈炎和牙周炎



牙周病是猫犬中最常见的疾病之一<sup>1,2</sup>。它是由于机体对牙齿上（牙龈线上下）沉积的牙菌斑产生炎症反应所致。

牙周病可按严重程度进行分类：

- 最先出现牙龈炎，且炎症仅限于牙龈组织。通过适当且持续的管理，此阶段的炎症被视为具有可逆性<sup>3-5</sup>
- 但是，如果未对牙龈炎进行治疗，则可能进展为牙周炎。在此阶段，牙周韧带附着组织和相邻牙槽骨（支持性结缔组织和骨骼）开始发生损坏。最终可能会导致牙齿脱落。牙周炎不可逆，但可以控制<sup>3-5</sup>

减少牙菌斑和牙石堆积是预防和管理牙周病的关键<sup>3,5</sup>。综合性的口腔卫生终生管理包括机械途径（如刷牙和定期专业洁牙及抛光）和非机械途径，两者都采用了营养成分<sup>3,5</sup>

## 重要信息

- 研究显示，专门配制的磨牙饮食和咀嚼物可减少猫犬的牙菌斑和牙石<sup>6-14</sup>。磨牙饮食和咀嚼物可采用机械和/或非机械作用机制：
  - 虽然与湿粮相比，任何宠物干粮都有助于减少牙菌斑和牙石<sup>15,16</sup>，但是专门配制的磨牙饮食和咀嚼物更有效<sup>6,7</sup>。优化磨牙宠物粮和咀嚼物的大小、表面积、形状、质地和/或密度，可以延长咀嚼时间并增加与牙齿和牙龈的接触，以便宠物在咀嚼时刮去牙菌斑和牙石<sup>6-10,12,14</sup>。例如，增加宠物粮的大小，为咀嚼物设计凹凸表面，以增加与牙齿和牙龈的接触；而为了延长咀嚼时间，可能会加入纤维<sup>8,10,17</sup>
  - 磨牙饮食或咀嚼物上的 VOHC（美国兽医口腔健康委员会）认证标志表明按照说明使用时，该产品符合 VOHC 抑制牙菌斑和牙石堆积的标准<sup>17</sup>
  - 虽然一些研究表明咀嚼骨头有助于去除牙菌斑和牙石<sup>18,19</sup>，但也有其他研究表明投喂骨骼存在潜在风险，例如牙齿断裂、食管异物引起的呛噎或穿孔<sup>20-23</sup>。病原菌可能污染生骨和饮食，对宠物和家庭中的人类均构成风险<sup>24-26</sup>。请避免为宠物投喂骨头。
- 磨牙食品和咀嚼物中可能会添加以下成分，以利用非机械方式减少或防止牙菌斑和牙石堆积<sup>7,9,27</sup>
  - 无机磷酸盐（例如焦磷酸盐和三聚磷酸钠）、螯合钙，以抑制牙菌斑矿化形成牙石<sup>7,9,27</sup>
  - 可溶性锌盐（例如抗坏血酸锌）是抗菌剂，可抑制牙菌斑中的细菌滋生<sup>9,10,14,27</sup>

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## 重要信息 (续)

- 针对处于健康状态以及不同牙周病阶段的猫犬的研究正在进行中，目的是发现牙菌斑菌群的差异。<sup>28-33</sup> 探索益生菌是否可改变猫犬口腔微生物群组成的初步研究显示出各种不同的结果。<sup>34-36</sup> 需要开展进一步的研究，以确定益生菌或益生元是否可以通过作用于牙周病原体来抑制牙菌斑和牙石堆积。
- 尽管牙菌斑沉积是牙周病的重要原因，但钙、磷、维生素 A、C、D 和 B 族维生素，以及蛋白质等营养物质的不足或失衡也可能对牙周组织的健康产生负面影响，例如导致牙槽骨吸收，特别是在幼犬和幼猫中。全面均衡的营养对口腔健康的发育和维持至关重要。<sup>10</sup>
- 由于牙周病可能会引起疼痛，应为食欲下降的宠物排除患有牙周病的可能性。

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