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| **Name:** |
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| 6B-5 |
| **Basic Science Question:** |
| What are the different types of anesthesia that can be used in the dental setting? |
| **Report:** |
| There are numerous types of anesthesia used in the dental setting. Most patients who have undergone dental treatment are familiar with the use of local anesthesia, as it is considered “the foundation of pain control in dentistry” (ADA, 2007). Local anesthesia can be injected or placed topically onto or into the desired region, which allows for reduced sensation and pain in that area (ADA, 2007). Beyond local anesthesia, there are sedation methods that can be implemented when treating patients with a more complex history. These sedation methods include minimal sedation, moderate sedation, deep sedation, and general anesthesia. Minimal sedation allows the patient to maintain their airway and respond to touch and communication normally. However, patients will have impaired coordination and impaired cognition. Methods to produce minimal sedation include less than 50% nitrous oxide or an oral sedative normally prescribed for conditions such as insomnia or anxiety (Anesthesiology, 2002). Moderate sedation is also a depression of consciousness with patients maintaining their own airways, similar to minimal sedation. However, having the patient respond to verbal commands may require another stimulus such as touch for moderate sedation (ADA, 2016). Deep sedation is depression of consciousness, to the point that they will not respond normally unless there is a painful stimulus. Also, with deep sedation, the patient may no longer be able to maintain their airway. Finally, there is general anesthesia, which is the loss of consciousness resulting in the patient being unarousable. During general anesthesia, the patient may no longer be able to maintain their airway and their cardiovascular function can be altered (Anesthesiology, 2002). Considering the risks that anesthesia can present, the American Dental Association releases guidelines for use of these different sedation methods. These guidelines include requirements for training, equipment available, personnel present, and patient monitoring for the different sedation methods. These guidelines promote patient safety and ensure that an appropriate response can occur in the case of an emergency (ADA, 2016).  |
| **References:** |
| ADA House of Delegates. “Guidelines for the Use of Sedation and General Anesthesia by Dentists.” *ADA*, 2007, www.ada.org/~/media/ADA/Member%20Center/Files/anesthesia\_guidelines.ashx. ADA House of Delegates. “Guidelines for the Use of Sedation and General Anesthesia by Dentists.” *ADA*, 2016, <http://www.ada.org/~/media/ADA/Education%20and%20Careers/Files/anesthesia_use_guidelines.pdf>An Updated Report by the American Society of Anesthesiologists Task Force on Sedation and Analgesia by Non-Anesthesiologists; Practice Guidelines for Sedation and Analgesia by Non-Anesthesiologists. Anesthesiology 2002; 96:1004–1017 doi: https://doi.org/10.1097/00000542-200204000-00031 |