In this time of heightened awareness of periodontal diseases and the potential consequences of untreated disease, a deterrent in the delivery of periodontal care continues to be patient anxiety concerning treatment and the fear of pain. These guidelines are intended for periodontists in the in-office use of enteral, inhalation, and/or parenteral conscious sedation in the delivery of care. The definitions, educational guidelines, and policies presented in these guidelines are consistent with the most current American Dental Association (ADA) documents Guidelines for the Use of Conscious Sedation, Deep Sedation and General Anesthesia for Dentists and the Guidelines for Teaching the Comprehensive Control of Anxiety and Pain in Dentistry available from the American Dental Association, 211 E. Chicago Avenue, Chicago, IL 60611 or http://www.ada.org, and for Revisions to Anesthesia Care Standards Comprehensive Accreditation Manual for Ambulatory Care, effective January 1, 2001, Joint Commission on Accreditation of Health Care Organizations, available through http://www.jcaho.org/standard/anesamb.html. This paper replaces the former position paper entitled “Guidelines for the Use of Conscious Sedation in Periodontics.” J Periodontol 2001;72:968-975.

Minimal to moderate conscious sedation is a safe and effective means of anxiety control when administered by trained individuals. The in-office use of minimal to moderate conscious sedation enables periodontists to extend oral health care to many individuals who otherwise would avoid treatment. Conscious sedation has as its goal a drug-induced state in which the conscious patient is free of fear, anxiety, and apprehension while pleasantly relaxed. Sedation may be achieved by several different methods of drug administration including oral, rectal, inhalation, and parenteral (intramuscular, intravenous, or submucosal). The methods most commonly used by periodontists are oral, nitrous oxide/oxygen inhalation, intramuscular, and intravenous sedation.

Conscious sedation is not a method of pain control and, therefore, should not be confused with deep sedation/general anesthesia and the inherent risks associated with these modalities. The use of sedative drugs in periodontics by appropriately trained individuals has an excellent safety record. Therefore, qualified individuals are trained in professional standards and techniques to administer pharmacologic agents to predictably achieve desired levels of light and moderate sedation. They are also trained to monitor patients carefully in order to achieve and maintain them at the desired level of sedation. The American Academy of Periodontology strongly supports the right of appropriately trained periodontists to use these modalities for the management of periodontal patients and is committed to supporting their safe and effective use.

Adherence to these voluntary guidelines will not guarantee successful treatment in every situation. Furthermore, these guidelines should not be deemed inclusive of all proper methods of providing conscious sedation. The ultimate judgment regarding the propriety of any specific procedure must be made by the periodontist in light of all circumstances presented by the individual patient and as required by individual state law and regulations.

DEFINITIONS

Methods of Anxiety and Pain Control
A variety of terms are used to describe the different methods of controlling anxiety and pain. The following are definitions used in this document and are accepted throughout all of dentistry.

Localized anesthesia: The elimination of sensations, especially pain, in one part of the body by the topical application or regional injection of a drug.

Analgesia: The diminution or elimination of pain in the conscious patient.

Minimal sedation (anxiolyis): A drug-induced state during which patients respond to verbal commands. Although cognitive function and coordination may be impaired, ventilatory and cardiovascular functions are unaffected.

Moderate sedation/analgesia (“conscious sedation”): A pharmacological-induced minimally depressed level of consciousness during which patients respond purposefully to verbal commands either alone or accompanied by light tactile stimulation. No interventions are required to maintain a patent airway and spontaneous ventilation is adequate. Cardiovascular function is usually maintained.

* This paper was developed under the direction of the Committee on Research, Science and Therapy and approved by the Board of Trustees of the American Academy of Periodontology in April 2001.
In accordance with this definition, the drugs and/or techniques used should carry a margin of safety wide enough to render unintended loss of consciousness unlikely. Further, patients whose only response is reflex withdrawal from repeated painful stimuli would not be considered to be in a state of conscious sedation.

**Combination inhalation-ental conscious sedation (combined conscious sedation):** Nitrous oxide/oxygen when used in combination with appropriate sedation agents may produce anxiolysis (the resolution of restlessness, apprehension achieved through pharmacologic management), conscious sedation, or deep sedation/general anesthesia. Because of the possibility of the combination of nitrous oxide/oxygen-ental sedation agents to result in mild to moderate conscious sedation, deep sedation, or general anesthesia, it is important for appropriate sedative agents and dosages to be administered when using combined inhalation-ental sedation to achieve anxiolysis. The enteral route typically exhibits a 30-minute latent period following bolus administration of the drug. Therefore, it is impossible to titrate a patient to a level of sedation that predictably achieves anxiolysis. The dose of an enteral drug should be selected to provide light sedation and then titrated to a level of anxiolysis with the addition of nitrous oxide/oxygen sedation.

**Deep sedation/analgesia:** Drug-induced state of depressed consciousness during which patients cannot be easily aroused but respond purposefully following repeated or painful stimulation. Patients may require assistance in maintaining a patent airway and spontaneous ventilatory function may be inadequate. Cardiovascular function is usually maintained.

**Anesthesia:** Consists of general anesthesia and spinal or major regional anesthesia. It does not include local anesthesia. General anesthesia is a drug-induced loss of consciousness during which patients are not arousable, even by painful stimulation. The ability to independently maintain ventilatory function is often impaired. Patients often require assistance in maintaining a patent airway, and positive ventilation may be required because of depressed spontaneous ventilation or drug-induced depression of neuromuscular function. Cardiovascular function may be impaired.

### Routes of Administration

The following are definitions of terms used in this document to describe routes of administration:

**Enteral:** Any technique of administration in which the agent is absorbed through the gastrointestinal (GI) tract or oral mucosa (i.e., oral, rectal, sublingual).

**Parenteral:** A technique of administration in which the drug bypasses the GI tract (i.e., intramuscular [IM], intravenous [IV], submucosal [SM], subcutaneous [SC], or intraocular [IO]).

**Transdermal/transmucosal:** A technique of administration in which the drug is administered by patch or iontophoresis (the introduction of a chosen medication into the tissues by means of an electrical current).

**Inhalation:** A technique of administration in which a gaseous or volatile agent is introduced into the pulmonary tree and the primary effect is due to absorption through the pulmonary bed.

### Terms

The terms used in this document were carefully selected and indicated the relative weight attached to each statement. The definitions of these words are as follows:

**Must/shall:** An imperative need and/or duty; an essential or indispensable item; mandatory.

**Should:** The recommended manner to obtain the standard; highly desirable.

**May/could:** Freedom or liberty to follow a reasonable alternative.

**Continual:** Repeated regularly and frequently in a steady succession.

**Continuous:** Prolonged without any interruption at any time.

**Time-oriented anesthesia record:** Documentation at appropriate intervals of drugs, doses and physiologic data obtained during patient monitoring.

**Immediately available:** On site in the facility and available for immediate use.

### Levels of Knowledge

The following definitions of levels of knowledge are used in this document:

**Familiarity:** A simple knowledge for the purpose of orientation and recognition of general principles.

**Understanding:** Adequate knowledge with the ability to apply.

**In-depth:** A thorough knowledge of concepts and theories for the purpose of critical analysis and the synthesis of more complete understanding; the highest level of knowledge.

### Levels of Skill

The following definitions of levels of skill are used in this document:

**Exposed:** The level of skill attained by observation or participation in a particular activity.