

## DC - Dental Caries

### DC-AP ANATOMY AND PHYSIOLOGY

**OUTCOME:** The patient/family will understand tooth anatomy and how it affects the susceptibility for decay.

**STANDARDS:**

1. Discuss that the portion of the tooth that is normally seen in the mouth (crown) is covered with a protective coating (enamel).
2. Explain that the root of the tooth is not covered with enamel. The root of the tooth is made of dentin - a softer, more easily decayed substance.
3. Explain that the inside of the tooth (live pulp) is a sensitive structure containing the nerve and blood vessels. Decay into this portion of the tooth may cause severe pain and can kill the tooth.

### DC-C COMPLICATIONS

**OUTCOME:** The patient/family will understand some complications/consequences of dental caries.

**STANDARDS:**

1. Explain that when dental caries are treated, a portion of the healthy tooth structure must also be removed, resulting in a weakened tooth.
2. Explain that treatment may cause inflammation of the pulp. This may result in temporary soreness of the tooth, infection, and/or death of the tooth.
3. Explain that dental caries can cause abscess of the tooth, which may extend into a sinus or other adjacent tissues. Explain that some dental caries may involve so much of the tooth that root canal or removal of the tooth may be necessary.
4. Explain that early tooth loss in children may cause abnormal eruption of permanent teeth. Alternatively, explain that permanent tooth loss may result in loosening and loss of other permanent teeth.
5. Discuss the need for prophylactic antibiotics before dental work as indicated to prevent cardiac complications.

### DC-DP DISEASE PROCESS

**OUTCOME:** The patient/family will understand the causes of dental caries.

**STANDARDS:**

1. Explain that helpful and harmful bacteria live in the mouth, particularly in plaque.

2. Explain that carbohydrates cause bacteria to produce acids that weaken tooth structure (by dissolving and demineralizing). Progressive acid attacks on the tooth surface may lead to dental caries.
3. Explain the various factors which may predispose a person to dental caries:
  - a. Poor oral hygiene.
  - b. High carbohydrate diet, especially frequent consumption (including sugar and soda). **Refer to DC-N.**
  - c. Children whose parents have active tooth decay.
  - d. Lack of fluoride.
  - e. Gingival recession.
  - f. Persons having undergone radiation therapy.
  - g. Genetic predisposition.

#### **DC-FU FOLLOW-UP**

**OUTCOME:** The patient/family will understand the importance of follow-up in the treatment of dental caries.

#### **STANDARDS:**

1. Discuss the importance of follow-up dental care.
2. Discuss the procedure for obtaining follow-up appointments and that follow-up appointments should be kept.
3. Emphasize that full participation of the treatment plan is the responsibility of the patient/family.
4. Discuss signs/symptoms that should prompt immediate follow-up.

#### **DC-HY HYGIENE**

**OUTCOME:** The patient/family will recognize good oral hygiene as an aspect of wellness.

#### **STANDARDS:**

1. Discuss hygiene as part of a positive self image.
2. Review daily dental hygiene habits.
3. Discuss the importance of daily oral care in preventing cavities and gum disease.

#### **DC-L LITERATURE**

**OUTCOME:** The patient/family will receive literature about dental care.

**STANDARDS:**

1. Provide the patient/family with literature on dental issues.
2. Discuss the content of the literature.

**DC-M MEDICATIONS**

**OUTCOME:** The patient/family will understand the purpose, proper use, and expected outcomes of prescribed drug therapy.

**STANDARDS:**

1. Describe the name, strength, purpose, dosing directions, and storage of the medication.
2. Discuss the risks, benefits, and common or important side effects of the medication and follow up as appropriate.
3. Discuss any significant drug/drug, drug/food, and alcohol interactions, as appropriate.
4. Discuss the importance of keeping a list of all current prescriptions and over-the-counter medicines, vitamins, herbs, traditional remedies, and supplements. Encourage the patient to bring this list and pill bottles to appointments for medication reconciliation.

**DC-MNT MEDICAL NUTRITION THERAPY**

**OUTCOME:** The patient/family will understand the specific nutritional intervention(s) needed for treatment or management of dental caries.

**STANDARDS:**

1. Explain that Medical Nutrition Therapy (MNT) is a systematic nutrition care process provided by a Registered Dietitian (RD) that consists of the following:
  - a. Assessment of the nutrition related condition.
  - b. Identification of the patient's nutritional problem.
  - c. Identification of a specific nutrition intervention therapy plan.
  - d. Evaluation of the patient's nutritional care outcomes.
  - e. Reassessment as needed.
2. Review the basic nutrition recommendations for the treatment plan.
3. Discuss the benefits of nutrition and exercise to health and well-being.
4. Assist the patient/family in developing an appropriate nutrition care plan.
5. Refer to other providers or community resources as needed.

## DC-N            NUTRITION

**OUTCOME:** The patient/family will understand the importance of good nutrition and its relationship to dental caries prevention.

### **STANDARDS:**

1. Discuss the relationship between carbohydrates, and the development of dental caries. Give examples of foods high in simple sugars, e.g., soda, crackers, potato chips, candy, pre-sweetened cereals.
2. Explain that allowing a child to fall asleep with a bottle containing milk formula, fruit juices, or other sweet liquids may increase the risk of dental caries.
3. Discuss the importance of calcium and fluoride intake as it relates to tooth development and mineralization.
4. Refer to a registered dietitian for MNT or other nutritional resource as appropriate.

## DC-P            PREVENTION

**OUTCOME:** The patient/family will understand ways to prevent dental caries.

### **STANDARDS:**

1. Explain that early entry into dental care (infancy and prenatal) is important in the prevention of dental caries.
2. Discuss factors that decrease the risk of caries:
  - a. Removal of plaque by brushing the teeth and flossing between them daily. Discuss and/or demonstrate the current recommendations and appropriate method for brushing and flossing.
  - b. Fluoride strengthens teeth and may rebuild the early damage caused by bacteria/acid attacks.
    - i. Explain that the most common source of fluoride is unfiltered, fluoridated tap water. It is also available in toothpastes and rinses, varnishes, or fluoride drops/tablets. Consult with a dentist/physician to determine if the drinking water contains adequate fluoride and if supplementation is needed.
    - ii. Explain that the use of fluoride may be used to prevent decay.
    - iii. Sealants may prevent dental caries.
3. Discuss factors that increase the risk of caries:
  - a. Frequency of carbohydrate consumption increases the rate of acid attacks, thereby increasing the risk of dental decay. **Refer to DC-N.**
  - b. Explain that pathogenic oral bacteria may be transmitted from one person to another; therefore, it is especially important that families with small

children (ages 6 months to 8 years) control active tooth decay in all family members.

4. Explain that the recession of gingival tissue (gums) exposes the softer dentin portion of the tooth (root). This portion of the tooth does not have an enamel covering, therefore, it is more susceptible to decay. Gingival recession may have a variety of causes:
  - a. Natural aging process.
  - b. Loss of attached tissue associated with periodontal disease. **Refer to PD.**
  - c. Improper brushing methods.
  - d. Genetic predisposition (frenulum/frenum attachment).

#### **DC-PM      PAIN MANAGEMENT**

**OUTCOME:** The patient/family will understand the plan for dental pain management.

##### **STANDARDS:**

1. Explain that pain management is specific to the disease process and patient. **Refer to PM.**
2. Explain that short-term use of acetaminophen, NSAIDS, desensitizers, and/or narcotics may be helpful in pain management as appropriate.
3. Explain that antibiotics may be helpful in pain relief in the case of abscess.
4. Explain non-pharmacologic measures that may be helpful with pain control, e.g., avoid hot and cold foods.
5. Explain that local anesthetics and/or nitrous oxide may be used to control pain during dental procedures.

#### **DC-PRO      PROCEDURES**

**OUTCOME:** The patient/family will understand the dental procedure.

##### **STANDARDS:**

1. Explain the basic procedure to be used (filling, root canal, extraction) and the indication, common complications and alternatives as well as the risks of non-treatment.
2. Explain that dental anxiety may be controlled or relieved by the use of anxiolytics or antihistamines as appropriate.

#### **DC-TE      TESTS**

**OUTCOME:** The patient/family will understand the test to be performed, the risks/benefits of the test and the risks of refusal.

**STANDARDS:**

1. Discuss the test to be performed and collection method, e.g., x-ray, pulp vitality.
2. Explain the necessity, benefits, and risks of the test to be performed and how it relates to the course of treatment. Discuss the risks of non-performance of the testing.
3. Explain the meaning of the test results.

**DC-TO TOBACCO**

**OUTCOME:** The patient/family will understand the role of tobacco use in dental caries.

**STANDARDS:**

1. Discuss that tobacco use is a significant risk factor for development of dental disease and tooth loss.
2. Encourage smoking cessation. If the patient is unwilling to stop smoking, emphasize the importance of cutting back on the number of cigarettes smoked in an effort to quit. **Refer to TO.**

**DC-TX TREATMENT**

**OUTCOME:** The patient/family will understand the necessary treatment (filling, root canal, extraction) and the proper oral care after treatment.

**STANDARDS:**

1. Explain the basic procedure to be used (filling, root canal, extraction) and the indication, common complications and alternatives as well as the risks of non-treatment.
2. Explain that dental anxiety may be controlled or relieved by the use of anxiolytics or antihistamines as appropriate.
3. Review the specific elements of oral care after treatment. **Refer to DC-P.**
4. Discuss the indications for immediate follow-up, e.g., continued bleeding, fever, persistent or increasing pain.