Saliva and Teeth

1. Where does saliva come from?

- Saliva is produced in the salivary glands.
    - The average production of saliva is 1.5 litres per day, or 45 litres per month.
    - This might seem to be a lot of saliva, but remember it is being produced continuously for 24 hours of every day.
- There are three pairs of salivary glands in the mouth:
    - The parotid salivary glands are in the cheeks, between the ear and nose.
    - The submandibular salivary glands are on the floor of the mouth, in the area of the lower molar teeth.
    - The sublingual salivary glands are under the tongue.

2. What are the functions of saliva?

- Saliva plays a vital role in several important oral functions:
    - Eating: Unless food is moistened by saliva it cannot be properly tasted or chewed.
    - Swallowing: Dry food is difficult to swallow. It could tear the lining of the throat. Liquid is needed to be able to swallow.
    - Speech: Speaking dries the mouth. Despite the normal presence of saliva, speakers often need to sip water when they make long speeches. Normal speech would be impossible without saliva.
    - Digestion: Food that is not chewed and moistened by saliva is difficult for the stomach to process.
- It plays an important role in the prevention of tooth decay.
- It may be used to test for diseases such as cancer and HIV.

3. How does saliva prevent tooth decay and gum disease?

- The flow of saliva helps to wash away food debris.
- It is alkaline, and so it helps to neutralise mouth acids and reduce decay.
- It helps to protect the teeth from erosion caused by acids in the diet.
- The saliva dilutes the strength of the acid.
- Saliva slows or inhibits plaque growth and calculus formation.
- This reduces the risk of gum disease.
- The calcium content of saliva can help to reverse the early stages of decay. This is called remineralisation.

4. What influences the flow of saliva?

- The flow of saliva is stimulated by the act of chewing.
  People who are too frail to chew properly are unable to produce enough saliva for a healthy mouth.
- The smell, taste, sight, or even the thought of food also stimulates salivary flow.

5. What is xerostomia?

- This is a persistently dry mouth caused by a reduced production of saliva.
- It is not the ordinary dry mouth that can be cured by a glass of water.
- It has many causes:

    - Inadequate chewing.
    - Medication such as anti-histamines, anti-depressants and drugs to reduce blood pressure.
    - Radiotherapy.
    - Mouth breathing.
    - Fatigue and anxiety.
    - Diseases such as diabetes or HIV.

- Ageing does not cause dry mouth. It is present in the elderly only when it is a symptom of a disease.

6. What are the effects of dry mouth?

- Dry mouth causes a great deal of discomfort such as:

    - Dryness and a slight burning feeling in the mouth.
    - Difficulty with speaking and swallowing.
    - Bad breath (halitosis).
    - Increased tooth decay.
    - Increased gum disease (gingivitis and periodontitis).
    - Difficulty with dentures, as saliva is essential for the suction needed to keep dentures firm and stable.
    - Cracking of the lips and corners of the mouth.

7. What treatment is there for a persistently dry mouth?

- Your dentist or doctor will advise you along the following lines:

    - It is very important to stimulate the salivary glands by vigorous chewing.
    - Eat foods that require chewing.
    - Sugarless chewing gum will stimulate the salivary glands.
    - Regular sips of water, or sucking ice can provide temporary relief.
    - Artificial saliva can be sprayed into the mouth several times a day.
    - Mouthwashes, lozenges and toothpastes can help to relieve the dryness.
    - When the cause of the dry mouth is a medical condition, you will be referred to your doctor for advice and treatment.
    - Sialogogues can stimulate the flow of saliva. Ask your doctor or dentist about them.