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*For the smiles of your life.*

## **THE IMPORTANCE OF SALIVA AND OVERALL HEALTH**

Saliva is a mirror to your health and can be tested to find clues to your overall health. Following are some important facts you should know about saliva and your overall health.

### **The role saliva plays in your body:**

- Starts breaking down food in the mouth where it can be tasted by the tongue and more easily digested by the stomach.
- Clears food and dead cells from the lining of the mouth.
- Binds food into a ball so it can be swallowed.
- Cleanses food and bacteria from the teeth.
- Prevents the membranes of the mouth from drying out.
- Destroys or prevents the growth of certain fungi.
- Neutralizes acid from food and drinks.
- Helps regenerate tooth enamel damaged by decay, because of its calcium and phosphorous content.

### **Saliva can be used for:**

- Fertility testing.
- Nutritional deficiencies in the elderly.
- Monitoring prescribed drug use for treatment compliance.
- Detecting illegal drug use.
- Monitoring alcohol intoxication levels.
- Identifying local and systemic diseases such as Alzheimer's and Sjögren's syndrome.
- Monitoring chronic diseases.
- Diagnosing infections – influenza, measles, mumps, rubella, herpes, hepatitis A, B, and C, HIV, and others.
- Testing a person's susceptibility to getting cavities.
- Assessing contamination from lead and other poisons.
- Determining the genetic make-up of an individual (genotyping).

- Other genetic tests including forensic testing.
- Testing for an increased concentration of the protein that could indicate breast cancer.

**Below are some additional interesting facts regarding this important bodily fluid.**

- Current saliva tests offer clues about a person's oral and overall health.
- Saliva is not a disinfectant, so it's not a good idea to lick your wounds! Mouths contain more than 600 types of bacteria, which can cause a cut to become infected if you lick it.
- Saliva is mostly water, but it also contains electrolytes, bacteria, viruses, fungi, secretions from your nose and lungs, cells from the lining of your mouth and about 500 proteins; food debris and toothpaste are routinely found in saliva.
- While saliva does not contain your DNA, the cells from the lining of your mouth found in saliva samples do.
- Scientists use DNA to conduct research as it allows them to locate specific genes that cause diseases and learn how our body works / functions based on our genetic makeup. (Gene therapy is a new technique used to replace "bad" genes with "good" genes to find cures for inherited diseases.)
- Saliva is used for various health tests and can indicate if someone has HIV, has used illegal drugs, is prone to cavities and others.
- Changes in your saliva can help indicate temporary illnesses or more serious conditions. Soon health care professionals will be able to tell as much about your health from saliva as they can from blood, plus saliva testing is less painful and more "user-friendly" than traditional blood testing.
- Scientists use saliva samples to tell how much of certain medications are in the body—an important thing to know for certain drugs which need to be kept at very specific levels.
- Technology is leading towards being able to have your doctor place your saliva sample into a cell-phone-sized device and get an instant reading on what drugs are in your system, and in what amounts.
- Scientists and researchers are eager to use saliva to detect disease; it's much easier and, in many cases, safer to collect spit than it is blood. HIV testing is one area in which saliva is already being put to use (although a blood test is still the norm to test for HIV).
- Saliva protects your teeth, aids in digestion and improves your sense of taste.
- Saliva is made in your mouth continuously.
- Saliva is produced by a series of major and minor glands located throughout your mouth.

- Saliva helps us in tasting sweet, salty, bitter and sour foods.
- The flow of saliva increases when food is simply mentioned.
- Children produce almost as much saliva as adults.
- Saliva is slightly acidic with a pH level between 6.0 and 7.0.
- Saliva contains essential ingredients – from proteins to buffers to enzymes - for your health and wellness. This aids with the body's immunity, speeding up or slowing down chemical reactions, slowing tooth decay, destroying cell walls of certain bacteria, regulating immune response, preventing HIV from binding to cells and helping to heal wounds.
- One minor protein has anti-viral, anti-bacterial, anti-cancer and other immune enhancing effects.
- The average person creates approximately 600mL (20 oz.) of saliva daily. This is affected by a number of factors, including:
  - Your genes.
  - The time of day ~ saliva production slows dramatically at night.
  - How much water you drink ~ more water, more saliva.
  - If you're chewing gum or enjoying hard candy ~ both increase saliva production.
  - If you smell something appealing ~ increases saliva production, hence the term "mouth-watering."
  - Medications you take ~ over 400 medications can cause decreased saliva production.
  - Age ~ saliva production decreases with age.
  - Whether you have a condition or disease that affects saliva production, such as Sjogren's syndrome, or whether you've had radiation therapy.