

From examining babies and mothers, I have also learned that the readings from the babies and infants that are breastfed have a tendency of showing a good and stable value. Also, the saliva ORP of the mothers who breastfeed their baby show an extremely good reduction value.

It has been widely known among the pediatricians that the babies that are nursed with the mother's milk have a lesser case of exanthema subitum (rose rash of infants) and even if they catch a cold, it will not affect them severely.

By measuring saliva, these things have been proven as facts. And addition to all this, the pregnant women also have very low oxidation of saliva and have a characteristic of showing good reduction value too.

*[Graph 7] The Saliva of Child-rearing Mother and Oxidation and Reduction Potential (ORP) of the Mother's Milk
Publishing Source: from Igaku-shoin Ltd. July 2009 issue; Paper Presentation by Dr. Mieko Okazawa, "Confirmation of Physical Wellness by Limiting the ORP Value of Saliva."

ORP of Saliva and Mother's Milk of the Mother Who Breastfeeds

Subjects A-T

ORP (mv)	Saliva from Mother That Breastfeeds	Mother Milk from Mother that Breastfeeds
+60		
+50		
+40	A	
+30	B, C, D, E	
+20	F, G, H, J	
+10	I, K, O, R	
± 0	L, M, N, S, T	J, T
-10	P, Q	F, G, P, R, S
-20		A, B, D, K, M, Q
-30		E, H, I, N
-40		C, L, O
-50		

This must be a testimony that the mothers who are carrying another life in their own body have healthy body. Also, the saliva of the mothers during the period that they are breastfeeding have a tendency of high reduction and low oxidation levels. The body that is working to bring forth a life has a strong vitality and it is natural to be full of vigor. However, in the case of women who are smokers and women with failing physical condition, they have saliva ORP of oxidative value. Tobacco smoking can be a cause of miscarriage and infertility so practicing non-smoking is essential.

I have already mentioned in Chapter 2 about the damage of the secondary smoke, a situation that happens when someone inhales the smoke indirectly by being by a smoker.

Examples of diseases that are caused by smoking tobacco are cardiovascular diseases: stroke, aortic dissection, coronary artery disease, arteriosclerosis, high blood pressure; cancer: lung cancer, laryngeal cancer, oral cancer, esophageal cancer, pancreatic cancer, stomach cancer, liver cancer, cervical cancer, myelocytic leukemia; perinatal period: premature birth, early rupture of membrane, low birth weight; respiratory organ: bronchial asthma, pneumonia, pulmonary tuberculosis; etc. It is shown in many epidemiological and experimental studies, in and outside of this country, that smoking causes these kinds of various health hazards.

According to some estimations such as from WHO, the number of death that came from smoking tobacco in Japan in 2000 rose up to 114,200 people: 90,000 male, 24,200 female.

It is showing that the number has almost doubled in 20 years, and it is predicted that this tendency will continue. Many tobacco related diseases take 20~30 years to develop and result in death, so the present tobacco death situation reflects the smoking situation that was in the past.

What is the True Identity of Oxidation That Induces Aging and Diseases? It is the Attack that Comes from Reactive Oxygen

I would like to discuss now again in detail about the oxidation in the body that is linked to aging and diseases.

Humans take in air (oxygen) that is necessary to live. Our 60 trillion cells operate by using oxygen as source of energy. The activities such as transforming food into energy, keeping the body temperature, and moving muscles and all the other necessary activities to live are done with oxygen.

It has been said that from the oxygen that is taken in from breathing, 2~3% becomes reactive oxygen to protect our own body. Basically, reactive oxygen has a very strong oxidation power. Because of that, it is very useful for our body to provide the purpose to destroy the pathogens and viruses that come into the body, and it also takes a major part in hormone synthesis.

However, if the reactive oxygen unnecessarily increases to a large volume for some reason, it will attack the body cells and will make the body oxidized. I'd like to give you an example easy to understand. When we leave alone the apple that was peeled, it will begin to oxidize and become brownish. Also, the 10 yen coins with a newer production date have bright copper color and they are shining but after few years, their luster becomes dull and gets oxidized and the color changes.

As you can see it here, when things get rotten, transfigured and depleted, they are oxidized.

As more and more cells get oxidized, we will see more symptoms of aging and diseases in that location. When the oxidized cells gather on the skin, they turn into spots and wrinkles, and when they gather in the internal organs, they become the cause of tumors.

It is also said in the modern medical science that with high probability, the reactive oxygen is the cause of diseases. Also in recent years, the mechanism of how the body oxidation causes the lifestyle related diseases is being clarified in recent years. It is thought that diseases from diabetes to some types of cancer, Alzheimer's disease and even rheumatism and arthropathy are caused by the oxidation of the body.

Included in the list of reasons for the reactive oxygen to increase are physical and psychological stress, environmental contamination, ultraviolet ray, exhaust emission, electromagnetic wave, jet planes, computers, mobile phones, large motors, smoking tobacco, chemical synthetic drugs, food additives and etc. As you can see, the important thing to keep us in healthy condition is to make efforts not to make our body oxidized.

Then, is there a way to prevent our cells to get oxidized? The 10 yen coin that lost its luster can be shining again by putting some vinegar on it. This action, which is opposite to oxidation that reverses it to the original appearance, is called reduction. The oxidation stops when it becomes reductive. And for that reason, we are able to prevent things from rotting or slow down the process of aging. In the same way, our body with proper breathing technique, food and lifestyle habits, can make the process of oxidation slow down.

Why Do We Wake Up Between 3~4 AM in the Night ?

For human body, oxygen is essential but did you know that during our daily life, the amount of oxygen changes for time to time.

Have you ever felt that the oxygen becomes thin when you climb mountains with high altitude or ever felt that the oxygen is thick when you are in a lushly green forest? The difference of oxygen level isn't actually that much between the two but the oxygen fluctuation level depending on the time of the day affects us in a significant way too.

We hear people often say, "I become awake at 3 am." It doesn't have to be exactly at 3 am but there are people who become awake between 2 am to 4 am. This is because during the whole day, the hour that the oxygen becomes most thin is right before the daybreak, between 2 am to 4 am.

We are beginning to understand that the reason why many people who are quite healthy wake up between 2 am and 4 am. If they ate or drank something late in the night and their digestive system couldn't rest, that could be the reason but if it is not, then it can be linked to the mechanism of how the oxygen is made by the natural providence.

Sometime ago, an article, "The Peak Time for the Patients with Angina Pectoris is 4 AM," was published on the newspaper. As a matter of fact, this is the time when patients who are brought in by the ambulance increase.

Also, this is the time zone when asthma attacks are prone to happen. One of the reasons why I think this happens is because the oxygen during this time zone becomes thin, and as a result, people breathe air that has more exhaust gas and chemical synthetic substances into their body and this makes them more vulnerable to oxidation influences. This is because the time zone before the sun starts rising is the lowest activity level for the plants to produce oxygen from the carbon dioxide that they take in.

From the evening time when the sun starts setting, the oxygen in the air becomes low O_2 condition and until the time the sun starts rising, the oxygen in the air is decreased, and when the sun rises and the sun light starts shining again, the oxygen with abundance of negative ion will be increased through the photosynthesis; this is how the natural law rejuvenates our body's condition.

Let us pay attention to how we breathe also in order to prevent the body from getting oxidized. When the sun appears in the sky, the trees and all other plants start photosynthesizing and the air during 5 a.m. until 7 a.m. in the morning becomes the freshest. So when we wake up

in the morning, let's open the windows and let the fresh air in. And if you are going for a walk, I recommend doing it during this time.

Within the natural providence, seaweed, aquatic plants, coral and other aquatic plants that live in the ocean and lakes, and plants growing in the soil that receive the blessing of the sun produce high quality oxygen with negative ion through photosynthesis, and this, we cannot continue to live without it.

With Mr. Yoshitaka Otomo who is the inventor and developer of the human saliva oxidation and reduction potential measuring device, I am continuing with the saliva clinical tests with the new theme of investigation and research about the ORP of air before and after the day break and after the sunset and also during the middle of the night.

The quality air that is produce by the nature's providence is the most precious thing that we need in order for us to live. We can breathe all we want but it's free and this air that moves on the surface of the earth cannot be monopolized by anyone by drawing a borderline.

The Relation of Odor and Disease: Seriously Afflicted Patients Have Peculiar Odor

If you neglect to take care after you have perspired and the filthy condition continues, bacteria will naturally multiply and you will have body odor. Also, stress and head cold could make your mouth temporarily dry and can give you annoying bad breath. But, for someone who is leading a rather normal life, bad breath and body odor definitely mean that there is a disease hiding behind them.

I have already mentioned that the recent studies say that with a probability of more than 90%, the cause of diseases is the reactive oxygen, which is the oxidation of the body. Higher the oxidation and heavier the symptoms people have, the peculiar odor that is particular to that diseases would smell. When we were medical students, the older students often told us, "Pay attention to the patient's odor," or "Smell the odor."

When I enter into different rooms of people with gastrointestinal disease, diabetes, liver condition, and uterus condition, I could smell the characteristic odor of each condition; if you get used to the smell, you could even predict the disease name. For an example, people with gastrointestinal disease would smell like rotten eggs and people who are diabetic would emit sweet-sour smell.

Also, even with someone who is not so sick as to be hospitalized, the people who are carrying a disorder of body have saliva that smells. But, it is not just the saliva but they would also have bad breath, or bad smelling passing gas or urine too, or somewhere from the body, they would emit bad odor.

As a matter of fact, an American non-profit organization, Pine Street Foundation that supports the cancer patients trained ordinary domestic dogs to distinguish between the exhalation of the people who have lung cancer or breast cancer and regular healthy people. The result of the experiment was that the dogs were able to sniff off 99% of the lung cancer and 88% of the breast cancer.

Also, among the odors that emit from the body, there is a "Old-People Smell." This body odor is not something that cannot be helped when someone becomes of age. Within the lifestyle habits, when you keep aging with the lifestyle habits that incline towards oxidation, the

metabolic capacity declines and when the oxidized substances that should have been discharged get accumulated, they turn into "Old-People Smell."

Perhaps, there could be a serious disease hidden behind the odor that you smell, so it is better to thoroughly check your health condition if you are bothered by your own body odor.

Also, the thick saliva that is secreted, when the sympathetic nerves become active, can be another reason for a bad breath. The type of people who possess a bright outlook in their daily life produce thin saliva of the parasympathetic nerve system, which will strengthen their immune system. So smiling all the time is a wonderful talent that does more than what we think.

The Difference Between Thin Saliva and Thick Saliva

When the inside of the mouth is sticky it means that the saliva has a high oxidation level and the condition of the saliva is bad. Everybody must have experienced that the mouth cavity becomes dry and sticky when we are anxious and stressful. The mouth cavity becoming sticky doesn't mean that the saliva isn't secreting but rather the sticky saliva is secreting.

Largely, there are three salivary glands: (1) parotid gland, which is under the ears (2) submandibular gland, which is under the cheek, and, (3) sublingual gland, which is under the tongue. Each gland secretes a different quality of saliva. The saliva from the parotid gland is thin and watery; the saliva from the submandibular gland is sticky and the saliva from the sublingual is in the middle. Now then, when does the sticky saliva get secreted?

The secretion of saliva is deeply involved with the autonomic nerves. The autonomic nerves adjust the functions of the body unconsciously; it serves the indispensable function to sustain human life in the workings of the stomach and intestine, and regulate breathing, metabolism and body temperature. The heart keeps on beating even when we are asleep, and when we see sour food, we naturally secrete saliva; these are all part of the workings of the autonomic nerves.

Among the autonomic nerves, there are sympathetic nerves and parasympathetic nerves, and these two types of nerves control our body by working opposite to each other. In a very general sense, the sympathetic nerves work when we actively move our body or when we need to fight; the parasympathetic nerves make us relax and give recovery to our body.

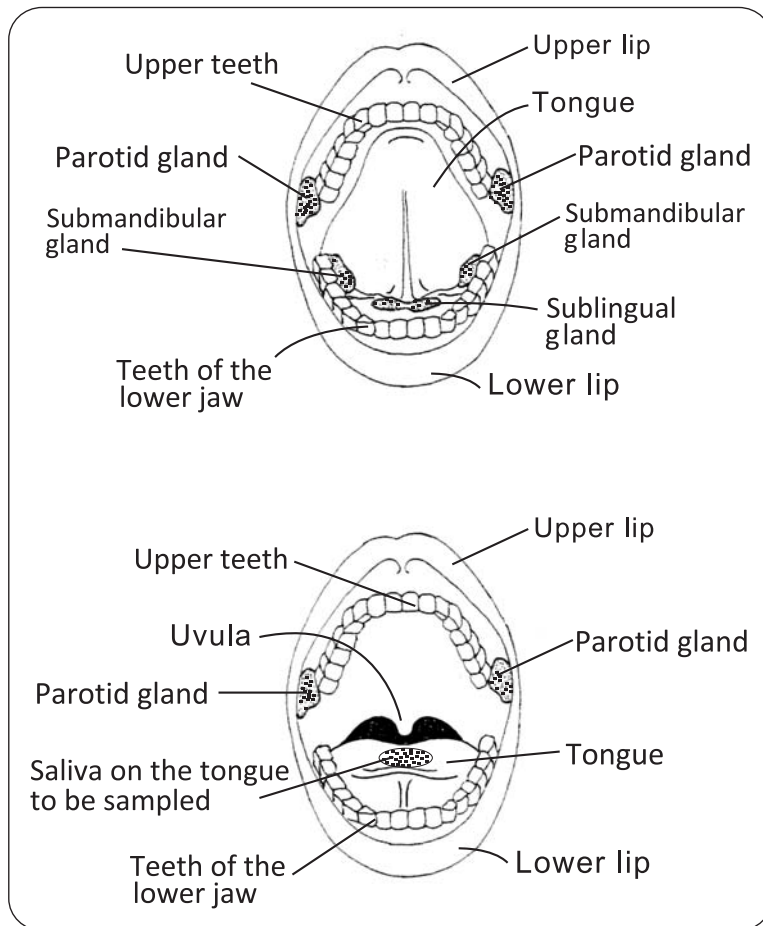
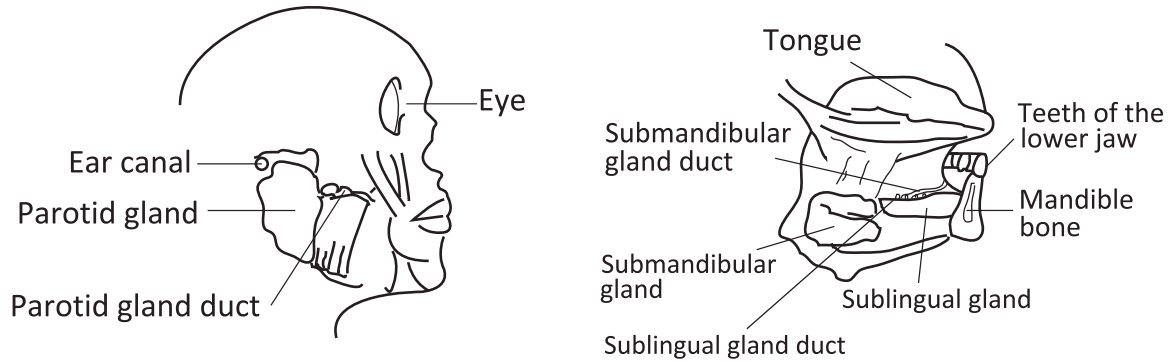
From our experiments, we know that when the parasympathetic nerves become significant, the saliva becomes thin and watery, and when the sympathetic nerves become significant, the saliva becomes thick and sticky.

You've probably experienced that the mouth becomes dry and sticky when we are speaking to make some important announcements or speaking at a meeting or to a crowd or especially when we see someone we adore. That is because the sympathetic nerves become active from tension and stress. The experience of having pain in the stomach when we have worries or when we are under pressure is related to this. When we continue to live in a way that stimulates sympathetic nerves, the food that we eat will not be digested well because our saliva becomes sticky. We can say that this is one of the causes of indigestion.

Now, when this sticky saliva increases, you become more prone to having bad breath, tooth decay and gum disease, and become unable to fend off pathogens; as a result, the resistance towards various diseases will drop.

*[Graph 8]- Largely, there are three saliva glands inside the mouth.
 (Publishing source: Saliva- Health of Teeth and Oral Cavity (Original: Saliva and Oral Health) Ishiyaku Publishers, Inc., By Michael Edgar, Colin Dawes, Denis O. Mullane and Supervisor of Translation by Shouji Kono (December, 1997)

There are largely 3 types of salivary glands inside the mouth.



This is because saliva is involved in the mechanism of producing blood; the sticky saliva that is significantly oxidized will produce oxidized blood. Furthermore, since a rejuvenation hormone, parotin is only secreted from the parotid gland, the abundance of sticky saliva will not do any good to anti-aging.

Let us be proactive to make some time to relax, and also to chew well when we eat, so that we can have a lot of thin saliva, otherwise, we wouldn't be able to receive the blessing of saliva that can protect our body in various ways.