

However, the harm of the tobacco reaches beyond the smoker and reaches to the people around them who are forced to smoke as passive smoking. The primary problem of tobacco smoking is that the second-hand smoke jeopardizes the health of the precious family members.

Through the clinical testing of the saliva oxidation and reduction potential, I try to tell, especially to the patients whose saliva is oxidized, about the importance of eating habits, lifestyle habits and positive attitude.

I even think that the people who smoke tobacco have no qualifications to talk about health.

I desire people to stop smoking not just for themselves but also for the health of the family members. Smoking tobacco is completely different from mere over eating and drinking.

Even if you smoke just one cigarette, the damage of passive tobacco smoking is critical. It is because the harmful substances that are present in the second-hand smoke are absolutely more than what's in the primary tobacco smoke that the smokers inhale, in most cases, they are twice the amount.

There are many even among the smokers that say, they have a difficult time handling the smoke that comes from other smokers. The risk of healthy looking babies dying suddenly called, SIDS (Sudden Infant Death Syndrome), increases unbelievably up to 4.7 times when both parents are smokers. This finding has been published from the Ministry of Health, Labor and Welfare of Japan in 2001.

In the publication of WHO, World Health Organization that showed the world's smoking rates among the 192 nations of the United Nations, Japan was the 19th among the highest smoking rates.

If you quit smoking, the condition of your saliva will improve. This has been verified using human saliva ORP measurement. If you want to be healthy, you should stop smoking right away.

Yuji Hasegawa, MD of National Hospital Organization Tokyo Medical Center presented a paper, "Consideration made by Oxidation/Reduction Potential Measurement" at the 7th Japanese Association of Smoking Control Science Conference on November 17, 2012.

According to the investigative research result of Yuji Hasegawa, MD that used the above-mentioned, saliva measurement device developed by Mr. Yoshitaka Otomo, the saliva of 10 persons who have completed non-smoking, during their initial examination, had an average saliva ORP value centering around positive (+) 73.1mV with plus or minus 29.4mV. Their highest oxidation value was positive (+) 102.5mV, a high oxidative condition. 12 weeks after they stopped smoking, their measurements showed the average of positive (+) 35.9mV with plus or minus 24.8mV. The largest value that inclined towards reduction was positive (+) 11.1mV, a reductive condition. (Refer to the graph on p.30, Reduction Borderline: 40-50 mV)

As a conclusion, it has been indicated by human saliva ORP measurement that people who smoke are under strong oxidative condition, and their oxidized condition can be improved by stop smoking. Also, it has been reported that the human saliva ORP measurements for the smokers are easy to use and that the index of oxidative stress (differences of the average tested value) that comes from tobacco smoking can become useful. (Cited from the proceeding of the 7th Japanese Association of Smoking Control Science Conference)

The ranking of the smoking rate among the major countries

* [Graph 5] The ranking of the smoking rate among the major countries.
(Source of reference: WHO Tobacco Atlas 2009)



Rank	Country	Smokers Percentage	M	F	Rank	Country	Smokers Percentage	M	F
1	Greece	51.7%	63.6%	39.8%	17	Czechoslovakia	31.0%	36.6%	25.4%
2	Russia	48.3%	70.1%	26.5%	18	South Korea	29.5%	53.3%	5.7%
3	Austria	43.3%	46.4%	40.1%	19	Japan	29.3%	44.3%	14.3%
4	Hungary	39.8%	45.7%	33.9%	20	New Zealand	28.6%	29.7%	27.5%
5	Portugal	35.8%	40.6%	31.0%	21	Finland	28.1%	31.8%	24.4%
6	England	35.7%	36.7%	34.7%	22	Belgium	27.1%	30.1%	24.1%
7	Poland	35.6%	43.9%	27.2%	23	Switzerland	26.5%	30.7%	22.2%
8	Turkey	35.4%	51.6%	19.2%	24	Iceland	26.4%	26.1%	26.6%
9	Luxembourg	34.7%	39.1%	30.3%	25	Ireland	26.3%	26.5%	26.0%
10	Holland	34.3%	38.3%	30.3%	26	Italy	26.0%	32.8%	19.2%
11	Spain	33.7%	38.4%	30.9%	27	Australia	24.8%	27.7%	21.8%
12	Denmark	33.4%	36.1%	30.6%	28	United States	23.9%	26.3%	21.5%
13	Norway	32.0%	33.6%	30.4%	29	Sweden	22.1%	19.6%	24.5%
14	France	31.7%	36.6%	26.7%	30	Canada	18.3%	19.0%	17.5%
15	Germany	31.6%	37.4%	25.8%	31	Brazil	16.6%	20.3%	12.8%
16	China	31.6%	59.5%	3.7%	32	Singapore	15.2%	25.5%	4.9%

What is Causing the Increase of Driving Fatal Accidents?

In the case of public transportation, it is because many lives are in the hand of one or few members of the operating staff.

One of the causes of the driving accident increase is believed to be SAS, a disease that causes the breathing to stop or become shallow while sleeping. Because the detection of this disease is very slow, and since the subjective symptoms are weak, it will not be detected by anyone and the condition gradually gets worse and develops into a serious problem. Typical examples of this is the insufficient sleep that comes from subarachnoid, heart infarction and brain infarction that suddenly attacks the body's condition among the operators such as, air pilots, Shinkansen (bullet train) operators, regular train operators, bus drivers, taxi drivers that caused multiple of operation accidents.

Particularly, it has been told that the symptom of sleep apnea syndrome is emerging not just in middle or advanced age groups but also among the 30s, and 40s and some as early as in the 20s.

When we examine these things, we would come up against a problem of radical increase in the number of dietary lifestyle diseases that incline to eating meat.

The main ingredients of meat are protein and fat but because of the molecular structure, protein is tasteless and the low molecular structure of fat has taste, this gives an impression that the meat tastes good. Whether its beef or pork, we think that sirloin meat taste better than the round because they have more fat. When we eat meat, we end up eating more fat than protein because they taste better to us.

Fat can be divided into vegetable and animal origins. The vegetable fat (sesame oil, olive oil) contains linoleic acid, an essential fatty acid that functions to lower the cholesterol in the body. Cholesterol is the substance that can be accumulated in the blood vessels and cause the hardening of arteries and the animal fat has large amount of saturated fatty acid and can easily get accumulated in the body. This is why, it has been pointed out that if we ingest too much animal fat, the cholesterol will be accumulated and this will likely trigger arteriosclerotic diseases that can cause lifestyle diseases, such as heart diseases, cerebrovascular diseases, hypertension and diabetes.

Since the ancient times, in Japan, meat diet has been regarded as forbidden food probably because Buddhism saw any killing as sin. The history behind is that, meat eating in the public has been prohibited in Japan since 7th century when Emperor Tenmu issued a meat ban and it continued until 19th century (Edo last years).

Surrounded by oceans, Japan and the Japanese people from long ago, used fish and shellfish as their daily food and regarded fish as an exception to the rule of eating meat. For generations, they have incorporated a diet, mainly of vegetable foods with rice, which is based on its climate and natural features and the ideology that was nurtured there.

There is a phrase, "local production for local consumption"; the foods that were produced in that country and with its soil have been selected and transmitted for many generations as most suitable food ingredients for the Japanese people who live there.

It has also been pointed out in the medical field that the deterioration of the Japanese traditional food has been progressing parallel to the increase of diseases that derive from dietary life style.

Because of this, I feel that it is necessary to inform many people, especially for the people who are unable to express their body's condition and elderlies that are bed-ridden, about the easy and painless method that can be used to gather the signs of changes in their body that can done using saliva in real time, unlike the blood sampling method that is invasive.

For an example, the effort to keep the workers in good shape, and to achieve zero incidents of accident caused by human errors at construction sites can become the strength for a general construction company. The reason for that is because if a company has a noticeable number of accidents that are caused by human errors, it would face difficulties in entering into public projects.

Consequently, during the morning assembly before the teams go out to the construction sites, the physical condition of the workers can be judged not only by how they look or by worker's self assessment report, but by incorporating saliva ORP measurement that objectively assess the workers' body condition. Then, the companies can take corrective measures such as increasing the breaks or changing the workers assignment. The need of 3 pm breaks with tea and some sweets are actually reasonable. I believe that these measures will give good results to prevent man-made accidents because poor physical condition can influence the falling accidents and also the quality of construction skill.

In the sports-related field, I believe that the requirement of the athletes who excel during critical times is how they can keep their healthy body that doesn't get oxidized. The reason for this is because there is not that much differences between the top athletes in their abilities, so the use of positive self-talk, such as, "I am invincible and my strength is the best," "I can bring out my best," and other mental health care become important. This is why, the athletes that seek mental health specialists who can take care of their mental weaknesses are increasing.

Unless the body isn't in the significantly reductive good condition, the timidity will emerge in the athletes' mind and makes it difficult for them to exert their physical and psychological strength, which is their mental staying power.

Additionally, the wellness confirmation of preschoolers and the kindergarten students and during physical education classes at schools, and checking for the initial symptoms during pre-disease stage in the communal living setting, are important because they lead to prevent disease infections.

Also, by incorporating the physical condition check for the operators of bus, train, Shinkansen, air pilot or boat that are entrusted with many lives, and their physical check list before boarding can lead to accident prevention and lessen the risks of the company.

Furthermore, we can expect to prevent accidents and disease infections by checking the physical condition of the Self-Defense Forces officers, who defend the nation of Japan, and police officers, fire fighters, navigators and the long distance bus drivers that are in the communal living settings.

Oxidation of the Body that Comes From Insufficient Sleep Makes Your Decision Makings Dull

The traffic accidents that are caused by insufficient sleep are tragic. The accident cases that happened that involve a single driver entrusted with many lives of passengers, give me chills just to be thinking about it. We are beginning to understand that sleeping is the time of recovery from the weariness of cerebral function, and by relaxing the aggressive commands that are coming from the brain, it prevents the command to the body's functions from crashing, as we say in computers, so we can energetically engage in our activities.

Some people say, "I can handle 2 to 3 days of lack of sleep." But, if you continue working overnight or continue to keep the nightlife, you are awake when you should be sleeping because when the sun goes down, the production of oxygen from the process of photosynthesis while the plants are receiving the sunlight, gradually decreases. The body catches the subtle oxygen deficiency and dulls the function that controls the brain's command during the resting time zone.

By receiving the colored light, hundreds of million natural light in the sunlight, the human body resets, the often talked about, "body clock" and brisk up its activities.

A sound deep sleep causes the secretion of melatonin, a sleep-hormone, from the part of brain called epiphysis that induces sleepiness and leads the brain to have a gradual rest. The secretion of melatonin will decrease unless the brain is rested at the proper time of deep sleep. A deep sleep also makes the body functions rested periodically to remove its fatigue.

Regardless of day and night, the human saliva ORP shows a surprising body oxidative value when there is a "sleep attack." Please be careful about driving vehicles and working with machine tools while fighting the sleep attacks because it is dangerous. Let's try to deviate this kind of danger by closing our eyes and sleep for just 10~15 minutes.

The people in the tropical islands know how to spend time of relaxation so they would take a nap leisurely in the shade during the hottest time of the day, around 1pm to 3pm.

As I have continued in the applied research of human saliva ORP, I have felt that the city life that prioritizes optimization under pressure of time brings biotransformation not just from the oxidation impact of the environmental changes but also from the changes that are affecting the sympathetic nervous system through the mental aspects.

