

the skin respiration. They also have high water absorbency and don't make the body cold because they wick away sweat quickly. They have a characteristic of retaining temperature: cool in the summer and warm during the winter. They do not burden the body and have a light wearability so you can feel relaxed wearing them. On the contrary, wearing clothes that are made from synthetic materials means that you are covering your body with a layer of oxidation.

As I was studying about the relation of the saliva and health from investigation and research of saliva measurements, I come to understand that more people, who wear clothes that are made from synthetic fabrics, such as nylon, vinylon and polyester, have saliva that has oxidative constitution and are prone to getting static electricity shock when they touch doorknobs. This is because when things especially like nylon get rubbed against each other, it causes static electricity. The fact that they are easy to cause electricity means that the body is covered with the positive ions that are emitting out of synthetic fabrics.

Positive ion is an atom charged with positive electrons. Positive ions are very unstable and they pick up negative electrons of the negative ions from the things that it contact with and continuously produce reactive oxygen.

At self-service gas stations (in Japan), there should an instruction at the pump to touch the installed discharging rubber before you start refueling. This is because in this age when many people are holding a charge from the synthetic fabrics, this is a preventive measure for the refueling station.

As far as clothing are concerned, fashion and practicability are important but if it's possible, it's better to choose natural fabrics for the body whenever you can.

## Turn Off Digital Equipment, Mobile Phones, Smartphones By the Bedside

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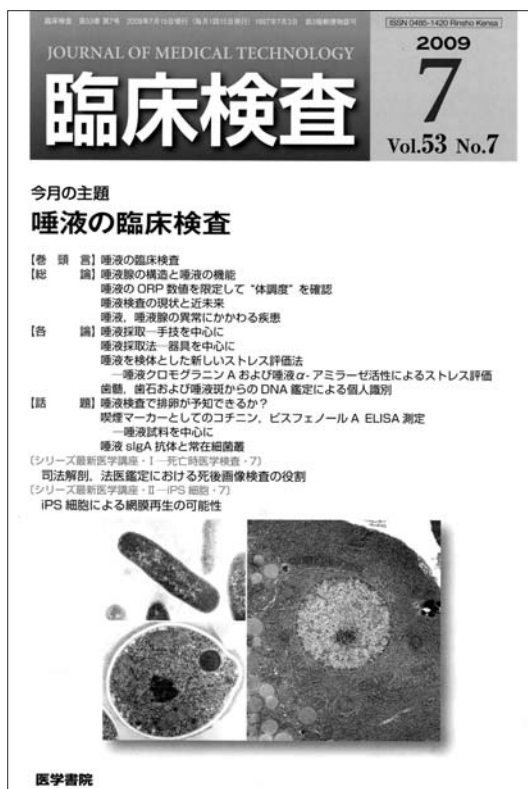
Mobile phones are becoming indispensable in our daily life. Nowadays, many people are carrying around smartphones with a computer system installed on them, but do you know that the electromagnetic wave of the smartphones is said to emit few hundred times more than the regular mobile phones.

In Japan it is not regulated yet but in England and in France, it has been announced that the people under 16 years of age are recommended to refrain from carrying mobile phones. It was said that this measure was taken in consideration of avoiding the higher risk of electromagnetic waves that are emitted from mobile phones that can affect the children who are of growing age and are more sensitive than the adults. However, we understand the parents' desire to let the children carry mobile phones so they can check the location and the safety of their children.

My acquaintance is letting her middle school child carry a PHS(personal handy phone). Comparing it to the mobile phones, PHS has significantly less electromagnetic wave output. According to a theory, the electromagnetic wave of PHS drops down to 1/20 of the mobile phones. My acquaintance's child is instructed to carry it in a bag so it is away from the body when walking around.

\*[Graph 11] Before and After of the Saliva ORP Under the Usage of Mobile Phone  
 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."

## Confirmation of Physical Wellness by Limiting the ORP Value of Saliva



This research paper was published on Igaku-shoin (medical journal), July 2009 edition.

It was distributed inside and outside of Japan through CiNii Research Paper Navigator, Under clinical examination: 53(7), 767-777, 2009-07 distribution in Japan.

Collaborated with Director of Okazawa Clinic, Dr. Mieko Okazawa, the samples were taken by cotton swab that absorbed the saliva from subjects after 40 min. of food and beverage consumption. These measurements were done using the human saliva ORP oxidation and reduction potential meter, a general medical device.

The saliva ORP data under the usage of PHS and mobile phones was included in the research paper that was published.

- PHS: (Personal Handy-phone System) is a system in which transmission from a distant location can be possible with a smaller size telephone that is carried by the user. The biggest difference between PHS and mobile phone is the difference of coverage by each base station.
- Mobile phones use 'microcell' system (single antenna covers a larger area by increasing the transmission output). Typically, a single base station will cover under 2km diameter.
- PHS uses 'microcell' system (it places numerous low-output antennas and covers larger areas by increasing the number of antenna). Coverage is about 500m radius.
- Usage of both systems are the same as portable phones but we need to be careful about the influence of the electromagnetic wave. The strength of the signal of the mobile phone at the receiving end is stronger than PHS. The reason why PHS are allowed in places, such as hospitals and examination agencies is because PHS have a weaker signal and doesn't affect the equipment in the hospital.

Also, this is not just for children but it is important for everyone to turn off the mobile phone before going to sleep, so you can sleep well. If you put your mobile phone with the switch on by the pillow where you can reach with your hand, since the brain's function is most vulnerable and open during bedtime, it means that you are just sending the electromagnetic wave constantly to your brain, which is outrageous.

Because in this modern age, our daily life has been blessed with the these digital functions, there are various types of electromagnetic wave protection attachments out there but we are waiting for the arrival of the equipment that we can use safely and without worry.

\*[Graph 12] Saliva ORP Before and After the Usage of Cellular Phones

Publishing Source: from July 2009 issue, Igaku-shoin, Clinical Test: Introduction of Paper Presentation by Dr. Mieko Okazawa, "Confirmation of Physical Wellness by Limiting the ORP Value of Saliva."

## ORP Under the Influence of Mobile Phones And Under High Voltage Power Lines

Considering the influences of the magnetic wave on the ORP value,  
testing dates were differentiated

Subject: Average ORP of about 100 male and female in the 20's ~ 50's  
(HVL=High Voltage Line) (Unit: mV)

Age	Sex	Before Using PHS Phone	After Using PHS Phone	Before Using Cellular Phone	After Using Cellular Phone	Before Going Under HVL	After Going Under HVL
20	F	36	62	39	88	37	96
20	M	41	59	47	79	45	100
30	F	46	70	51	84	49	91
30	M	43	66	45	76	40	84
40	F	45	67	48	84	46	102
40	M	44	71	43	94	52	101
50	F	40	69	53	77	51	93
50	M	41	62	51	75	53	90
60	F	56	77	58	88	50	110
60	M	52	79	54	90	49	112

### It is Said that If you Age Well With a Clean Heart, You Will Meet Broad-Minded and Healthy People

There are some young people that have backward attitude. They take things slantingly and whenever something bad happens, they would blame it on the society or the people around them. It seems that these are the kind of people who bring sicknesses to themselves.

As it is said that, "Sickness start with the mind", the words that we speak and the manners that we care for others soften the surrounding and soothe the atmosphere around us, and you yourself become cheerful and healthy. When we grow experientially and in wisdom and become broad-minded, we can accept others more and as a result, we can find delicate joy in our daily life.

I want to feel the joy that I'm living and be always moving forward without forgetting my dreams: this is the way I desire to live my life. I am confident that there's no age limit in challenging the life's theme you have found. And, I have personally experienced that when I keep a passionate heart in living everyday, I will forget about my age and it'll bring health to my body.

As a physician, since 'Asai Organic Germanium' and 'human saliva ORP' were themes no one has worked on in the past, they were worthy projects to do.

The theme of oxidation and reduction potential (ORP) within the scope of natural law becomes an important confirming index in various situations. Human saliva, air, saliva of animals, sunlight, color light and color pigments, vegetables and fruits, drinking water, seafood, plants, soil, seawater, hot spring water, frequencies of spoken words and movement of the heart: themes are unlimited.

## The Way to Take Meals That Give Secretion of Thin Saliva and Reduction Action That is Good for Our Health

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By chewing the food slowly, the parasympathetic nerve is stimulated and the thin saliva will be secreted from the parotid glands. When this saliva comes out, there's only but good things happen.

Firstly, because the digestive enzyme called amylase that is included in saliva will digest the starch, then, pepsin, a digestive enzyme of the stomach will start activating so the food will be smoothly digested. Also, chewing a lot means chewing slowly for 30~50 times and chewing more gives better digestion, and as a result, it makes good body cells and helps discharge toxin. It also prevents wasting of enzymes that have importance function in metabolism.

It is also believed that, when we chew well, it aligns the preparedness for the digestive organs and the absorbing organs, such as stomach and intestine so they can selectively choose the elements that are necessary for the body, and it also activates the mechanism that prevents the unnecessary elements from being absorbed.

Chewing well also links to solve obesity. It means that, when we chew slowly, the brain's satiety center is stimulated and the signal of "I'm full now" is sent out so that it prevents us from overeating.

Also, it is reported that when the diabetic person chew well, the empty stomach blood sugar level would drop. Chewing well affects the condition of diseases too.

Then, when we say 'chew well', how many times is the reference? For me, I give instructions to people to chew at least 20 times, if possible, about 50 times. Since there are no teeth in the stomach, don't swallow the food as a chunk but making the food small as possible is a consideration towards your own body.

When we eat, the mouth is the first place where the food enters and it get chewed and broken into small pieces and will be carried into the stomach through esophagus.

Stomach mainly has a purpose to digest food and dissolves the food to mushy state with the gastric juice as it vigorously moves in peristaltic motion, and carries the well-dissolved food to small intestine. If the food is a chunk, it is hopeless for the intestine wall to absorb them.

The small intestine is the next place where the food is carried into from the stomach. This is a tube like organ of about 6 meters, and it's comprised of three smaller segments: duodenum, jejunum and ileum. Among them, duodenum is the first organ where the dissolved food is being absorbed and this is the place where it is extremely vulnerable to the diseases and other abnormalities that occur in the stomach. Most of the food that we eat will be absorbed here in duodenum.

The nutrition that is absorbed by the small intestine wall is carried into capillaries and liver and further carried on to the rest of the body as nutrients. Most of the nutrients are absorbed in the small intestine, and the rest will be carried on to the large intestine and the whole mechanism proceeds to transform it into feces that will be eliminated.

For the human body's life sustaining activity, great deal of nutrients are necessary and the small intestine that does the absorbing of the nutrients becomes important.



## Method of Eating Meat and Fish That Makes You Healthy

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I have mentioned that eating meat consumes the oxygen in the body, but I am not saying that you shouldn't eat it at all. Since meat gives you more calories from small quantity, for a growing child or for someone who moves his body a lot, eating meat might be necessary. However, before you eat some meat, please eat about three times more vegetables. The reason for that is because high calorie meat will use body's enzymes to burn, and in order to replenish the decreasing digestive enzymes and metabolic enzymes, eating vegetables before eating meat can neutralize the tendency of body becoming oxidized.

Some types of vegetables have polyphenol, an anti-oxidant; organic germanium, etc. But, from the perspective of oxidation and reduction, and raising the quality of saliva, in general, fish, shrimp, shellfish, *satsuma-age* (fried fish balls), and *kamaboko* (boiled fish paste sausage) are considered good, but my recommendation is fish.

Among the fish, what prevents the body from oxidation is sashimi. One of the reasons for that is because, since you eat it raw, you are taking in enzymes too. The enzymes in our body have functions other than digestive decomposition of food; they accomplish important function as catalyst for every activity that we do, such as, building our body, breathing and thinking. Meanwhile, the quantity of enzymes that are produced in the body in our lifetime is predetermined, so when we overeat or eat high calorie foods, it will be used up. Therefore, if we try not to waste our body enzymes by compensating it from the food, it will benefit for our health and longevity.

Additionally, if you're going to eat fish, you should choose the meat of a fish that is dark red with blood instead of the white meat. I eat one or two slices of tuna red meat sashimi every other week. I recommend this for an elderly person like myself. The reason for that is this. In sashimi red meat, there is an action that promotes the activity of gamma globulin, which is in our blood that raises the immunity by neutralizing viruses and bacteria.

From long ago, it has been said, "If someone becomes ill with pneumonia, let him drink the blood of carp," and as a matter of fact, it's been told that the feudal lords in Edo period had their servants bring the blood of the living carp. This blood of the living carp also contains element that activates the gamma globulin.

Even in the modern days, the Ministry of Foreign Affairs specifies to have an injection of gamma globulin for the people who travel abroad. When children are in danger of contracting pneumonia, we, pediatricians use gamma globulin injection. The saliva after the injection of gamma globulin will show brilliantly in the reductive direction.

Heme iron, which is contained in the red part of meat and fish and also in vegetables, is easy to bind to oxygen. And it becomes a substance of hemoglobin of the red blood cell, which carries oxygen throughout the body.

If you want to better the condition of your saliva and make your body reductive, you should eat some red tuna meat and similar foods.

## "Japanese Traditional Food Ingredients" Help When There is No Appetite

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When we stay at *ryokan* (traditional Japanese travel inns), they sometimes serve us with dried salted plums to go with Japanese tea before we have dinner. This is all done in order

to promote the saliva secretion to activate the secretion of gastric acid, which will provide the stimulation of digestion during dinner.

Likewise in other countries, we often have juices such as orange and tomato, or grapefruit before dinner. We probably know by experience that these sour and citrus fruits help our digestion. I also have a friend that brings dried plums every time she travels abroad.

Once upon the time, only some people could eat the precious *umeboshi*, the dried salted plum. It was propagated to the general public only in Edo period, and in the recent days, it is recognized anew as a healthy food among the traditional Japanese food ingredients that gives reduction, anti-oxidant.

When exposed in the air, *umeboshi* is acidic but when it enters the body it turns into alkaline, this is why it is considered as an extraordinary food ingredient but this phenomenon is completely different from the oxidation and reduction potential that we are discussing in this book.

Even the colleagues who are physicians make a wrong interpretation and say, "You're talking about pH," but the characteristics of acidity and alkalinity is technically defined by the aqueous solution concentration of a specific ion called hydrogen ion (H<sup>+</sup>).

The pH is measured against a single potential of the hydrogen ion, and what we're discussing here is the saliva oxidation and reduction potential and it is measured by the overall calculation of oxidation and reduction potential of all salivary components. If I compare this to the trees, it is to measure the total combined potential of a tree, from the leaves of the branch that receive photosynthesis to promote growth, to the trunk of the tree, and all the way down to the roots that carry the nutrients from the earth. It is not about measuring just a part of the tree, and because of that, it can confirm whether the body is comprehensively in the healthy state of reductive condition or in the oxidative condition that can lead to diseases.

Actually, the alkaline food such as *umeboshi* leads to much secretion of saliva, and it not only enhances appetite but it also dissolves amylase, an enzyme that is included in saliva, and changes it into maltose. These are some of the benefits that *umeboshi* provides to promote excellent workings of salivary components, and it is truly one of the food ingredients that have the hidden power to revive our body.

Plum wine is one of the representative products among the things that are made from plums. In the recent days, it is becoming very popular among women and different types are sold but it might be a good idea if you made it yourself. Because if you make it yourself, then, you can choose the ingredients and adjust the taste yourself, so you'll have a peace of mind about it.

By the way, I love to eat the plum that is in the plum wine jar. When I was a child, our family made plum wine every year. The plums that are soaked in the jar after a period of time come floating on the surface. When I see this, I couldn't help myself and often end up stealing it from the eyes of my parents.

The plum wine that has the plum extract in it gives reduction to the body, and its sour taste hasten the saliva also, so it becomes an ideal aperitif before a meal. Obviously, the saliva ORP after the consumption of the dried plum shows the reductive action. To have a drink of plain hot water with grilled plum in it makes a lot of sense. You'll become significantly reductive even with that alone. Please try it, by all means.