URINE

Urine consists of 95% of water, 2.5% of urea and the remaining 2.5% is a mixture of minerals, salts, hormones and enzymes. Only urea, the substance after which urine is named, can be poisonous when present in the blood. However, this is irrelevant in the practice of drinking urine, as urine is not immediately put back in the bloodstream. If small amounts urea gets back into the body, it is purifying, and clears up excess mucus. Urine is entirely sterile after secretion and has an antiseptic effect.

One of the liver's most important functions is detoxification of the blood. The liver removes poisonous substances from the blood and either stores them or secretes them into the gall bladder. In the latter case, the poisonous substances end up as bile in the intestinal canal. They then leave the body in the form of defecation. After the blood is detoxified by the liver, it flows to the kidneys.

The kidney's most important function consists of balancing out all elements in the blood. They remove all superfluous vital substances from the blood, and filter out a surplus of water. This water and the vital substances consequently form urine. In order to save energy and bring the blood into balance, the kidneys remove unused enzymes from the blood. The same goes for hormones, minerals and other substances. It is clear that urine is full of vital elements, which can hardly be called waste products.

Enzyme deficiencies can lead to deviations in the normal physiology characterized by inflammatory conditions. If left untreated, these conditions may lead to diseases.

TESTINGS

You can obtain Parameter Urinalysis Test Strips on the Internet (amazon or ebay) for $16-30 incl. shipping and they measure: Glucose; Leukocytes; Nitrites; Protein; Blood, Hemoglobin.

- **Glucose is showing the excess sugar being dumped and if shows, proceed to diabetes testing;**
- **Leukocytes is a product of white blood cells, and may indicate urinary tract infection;**
- **Nitrites present can indicate urinary tract infection;**
- **Protein is of concern if larger amounts are indicated. Mayo Clinic gives conditions that can cause a temporary rise in the levels of protein in urine, but don't necessarily indicate kidney damage: https://www.mayoclinic.org/symptoms/protein-in-urine/basics/causes/sym-20050656**
- **Ketones could be a sign of diabetes, needs follow up testing.**
- **Bilrubin is a product of red blood cell breakdown and passes into the liver where it is removed; normally there is no bilrubin or urobilinogen in the urine. If there is, check for liver or gallbladder disease.**
- **Blood in urine can indicate kidney or bladder stones, kidney or bladder cancer or blood disorders.**

NOTE: if a test shows that a nutrient does not appear in the urine, it means the body is using all there is. eg. If the level of calcium is below that in the urine test, it indicates the blood has no calcium to spare and may be even sucking calcium out of the cells and bone, a condition that leads to osteoporosis. This may be the case even if the blood values for calcium are in the normal range. If levels of nutrients in the urine are higher than what is considered normal, then the blood is dumping excess nutrients into the urine. eg. The urine test can show too much calcium or the electrolyte chloride (salt). High chloride levels can mean you are eating too much salt or have a lipase deficiency.

Colour of Urine

Normal: amber due to presence of pigment urochrome
Dark yellow: often not drinking enough water.
Fluorescent Yellow: B vitamins is usually the cause
Orange: may be very dehydrated. May also be from medications or eating lots of carrots.
Pink or red: hematuria/blood in urine (suspect kidney or bladder infection or could also be from strenuous exercise). May also be from eating beets.
Dark brown or tea colored: Medications and some liver disorders can be the cause. Eating a lot of fava

beans, rhubarb or aloe also will affect.
Blue or Green: can be a rare condition that causes high levels of calcium. Also could be from eating asparagus which also adds odor to urine.
Bluish-green: usually side effect to medicines or consumption of food dyes found in asparagus etc.

Clarity of Urine

Normal: clear
Cloudy: presence of excessive cellular material or high levels of sediments due to urinary tract infections, bladder infections, gonorrhea, or kidney stone. May also look cloudy if recent bladder surgery because of bacteria colonizes in bladder. Certain foods and medicines can also cause cloudy urine.
Foamy: presence of protein in urine, test urine with dipstick to be sure. May have schistosoma haematobium parasite infection.

Smell of Urine

Sweet smelling: may be diabetes, from high concentration of blood sugar

pH TESTING OF URINE

You can get testing equipment at an aquarium store or online.

The health of the blood takes precedence in the body and cells will sacrifice nutrients in the service of maintaining the blood's relatively narrow pH range of 7.35 to 7.45 as well as its levels of electrolytes, protein and other nutrients. Thus, the blood takes what it needs from the cells to achieve its necessary balance or homeostasis.

When a healthy person eats, the urine becomes alkaline from the alkaline tide, the body's method of dumping alkalinity to compensate for HCl losses during digestion. In a healthy person, a first morning urine is very acidic because of the prior eight hours of fasting during sleep. The acid reserves are then released during the first meal and the urine then becomes alkaline. In a 24-hour volume, the average pH range in a healthy person is from 6.3 to 6.7. Most people are more acidic (lower pH) than 6.3, while fewer are more alkaline (higher pH) than 6.7. Of the two, it's better to be more acidic than alkaline because the body has more buffer systems to handle excess acidity than excess alkalinity. The further from normal the 24-hour pH is, the more potential problems. For example, excess alkalinity leads to calcium metabolism problems, anxiety, immune dysfunction and indications connected with protease deficiency.
Interesting to note that on the Chemstrip, a healthy pH for urine is between 5 and 6pH.
On the other hand, excess acid reserves mean not enough alkalinity is present to activate pancreatic enzymes in the duodenum.

An overly acidic urine pH means the blood is dumping excess acid reserves into the urine in order to maintain its optimum pH.
An overly alkaline urine pH means the blood is dumping excess alkaline reserves into the urine.

What we usually measure: saliva and urine

Normal pH of saliva: To test the saliva, use a strip of pH test paper about 2" long and create a pool of saliva on your tongue. While holding one end of the test paper, dip the other end into the saliva, being careful not to touch your lips to the paper. After dipping in the saliva, immediately pull it out and read the paper.
Optimal first morning readings after fasting all night is 6.4 to 6.8pH. The pH of your saliva moves from high to low according to what you eat during the day and how your body metabolizes your food. Saliva pH readings reflect the health of the lymph system, the upper digestive system including the stomach, pancreas and liver, and the state of the sympathetic and parasympathetic nervous system. The saliva contains an enzyme that comes directly from the liver, so the saliva pH is a good indicator of the strength of the liver. The saliva pH reveals the level of energy coming into the body.

Normal pH of urine: Test the urine in mid-stream using either a cup to catch the urine or by using a longer strip of pH paper. First morning readings after fasting all night is 6.0 to 6.4pH. Urine pH indicates the overall function of cell metabolism, showing the level of metabolic wastes being removed. Urine pH reading should be lower than saliva pH in the morning since urine is dumping residues from nighttime fasting.

However, when urine pH is under 6.0 for a long period of time, the body begins to age more quickly and enzymes that are needed to rebuild cells are inactivated. As urine pH gets above 6.4, it shows metabolism is moving more slowly and problems such as constipation may be occurring. Generally, when the urine pH level stays below 6.0 for an extended period of time, it is an indication that the body's fluids elsewhere are too acid, and it is working overtime to get rid of the excess acids. When the urine pH is too acid, the body releases many electrolytes to keep the pH level normal and maintain life.

Urine testing is best done upon first rising in the morning and because the body is removing wastes overnight, the body will tend to be more acidic in the morning. During the day the ideal urine pH is about 6.4, but first then in the morning it can range from 6.0 to 6.4pH. Urine testing is best done by testing the urine in mid-stream, using either a cup to catch the urine or by using a longer strip of pH paper.

As stated before, the urine pH shows the level of acidity of the cell metabolism. The pH of urine can range from 4.5 to 8.0pH. The kidneys maintain normal pH balance primarily by retaining sodium and excess acid retained by the body increases. Alkaline urine is normally excreted when there is an excess of base or alkaline substances in the body. Secretion of an acid or alkaline urine by the kidneys is one of the most important mechanisms the body uses to maintain a constant body pH.

A highly acid urine pH occurs in uncontrolled diabetes, diarrhea, dehydration and respiratory diseases in which carbon dioxide retention occurs. Highly alkaline urine occurs in urinary tract obstruction, kidney weakness, and respiratory diseases that involve hyperventilation. Most of the bacteria responsible for urinary tract infections make the urine more alkaline because the bacteria split the urea into ammonia and other alkaline waste products.

The formation of kidney stones is related to the urine pH. Those being treated for certain types of kidney stones are frequently given diets or medications to change the pH or the urine so that kidney stones will decrease. Calcium phosphate, calcium carbonate and magnesium phosphate stones develop in alkaline urine. Therefore in this case, the urine should be kept acid. Uric acid, cysteine and calcium oxalate stones form in acid urine, and in this situation, the urine should be alkaline or less acid than normal.

Note: when the urine and saliva pH are both acid, the whole system moves too rapidly and more energy is used to breakdown tissue than to rebuild tissue. When the pH of urine or saliva continues to be less than 6.0, the state of health varies between mildly poor to very poor.

Anxiety or chronic stress could also be affecting the physiology. If mental or emotional factors are not the cause, improving diet, detoxification and gentle exercise will move the values up to the correct range.

The body will use acid-neutralizing minerals such as calcium that is stored in the bones, to maintain a healthy balance which is why as we get older, we have a greater tendency toward osteoporosis.

When the saliva pH is at least 6.2, it is within the healing range which indicates the body has the ability to come back into balance more easily with simple changes in diet. On the reverse side, when the body is too alkaline, the system moves more slowly. The longer the pH is out of balance, the worse the metabolism functions. Toxins will build-up more quickly and more damage will occur to our cells.

In order to test your pH you will need pH paper or a pH meter. Using just the saliva does not give you a very accurate picture. Best to take the measurements in the morning. Many dip the pH stick into their first urine of the morning, however there is some evidence that the first morning urine is quite acidic and the second urine might be more accurate. Try both and see what you get.

For those that have a fungal overgrowth, it is interesting to note that fungus needs a pH of 5 (acidic) to survive, so it would be good to have the colon at 6pH (most people are 4-5).

In extreme acidosis, the kidneys can produce ammonia (pH 9.25) to buffer the acids, and calcium is leached from the bones.

What pH do different bacteria prefer:

H pylori prefer pH between 3.5 - 8 (with best at 5.0)
Salmonella typhi has optimum at 4pH
Streptococcus bovis prefers 4.5-6.7 pH
however bacteria can thrive under various conditions, and their growth is stimulated in high-sugar conditions.

Viruses like a fairly alkaline environment.
Fungi like a more acidic environment.

An excess of toxins in your diet and environment tends to increase the production of acid within cells, forcing the body to compensate by producing a strong alkaline reaction in the blood - this favours the growth of Cancer cells.

At 5.8pH cancer cells begin to form and at 3.5 pH the human body cannot sustain life.

Results of pH Testing:

1. Urine and Saliva pH both high: tendency to toxic conditions in metabolism. When both urine and saliva pH are too high for a period of time, (above 6.4 pH for urine and above 6.8 pH for saliva), then body goes into toxic stress state. When this occurs, system is overloaded, producing constipation, congestion. Symptoms: intestinal gas, body odor, bad breath, distended abdomen, sinus and upper respiratory congestion, skin discoloration, disk deterioration along spine, increased tooth decay. Alkaline pH readings indicate metabolism has slowed down and can be caused by liver or kidney weakness.

2. Urine pH low, saliva pH high: tendency toward joint and muscle stress or pain from congestion in these tissues. When the Saliva pH is above 6.8 and Urine is lower than 6.0, body goes into a state of joint and muscle stress. Digestive system is out of balance since upper digestive system is moving slower than the lower digestive system, creating abdominal gas and bloating. This creates congestion and accumulation of toxins, knots and lumps in soft tissues. Energy is being lost. Pain in tender points comes from these toxins that have accumulated in the muscle tissues.

3. Urine pH high, Saliva pH low: can lead to stress in circulatory system. When Saliva pH is low (below 6.4), and Urine pH is above 6.4, there is a tendency toward slow circulation with movement toward having a stroke or heart attack. This pattern can have digestive stress because the upper digestive system is moving quickly, and the colon is shifting toward a slow state. Excess wastes that are created when the body is too acid are unable to move out of the system. This is what causes the circulation problems, since the toxins created can't be released as needed.

4. Both urine and saliva pH low consistently: immune stress where oxidative stress causes the body to age more quickly. When the Saliva pH stays lower than 6.4 and the Urine pH is lower than 6.0 for a period of time, the immune system is affected. This acid state occurs because the digestive system is moving too fast and nutrients can't get into the cells. There will be a tendency toward fungal infections, leg cramping and joint aching.
Calcium will be drawn out of the bones to balance this acid state, so osteoporosis occurs when the body stays in this pattern. When the urine and saliva measurements test regularly with lowered pH readings,

less oxygen is in the cells. This lack of oxygen in the tissues increases anaerobic bacteria and fungal growth in the body. This immune system stress will cause shortness of breath as the lungs are drawn upon for mineral energy. Chronic diarrhea and other malabsorption problems will be seen, such as colitis and Crohns disease. Anemia comes from prolonged acid conditions and supplementing vitamin B12 and iron will not help unless pH levels are improved.

URINE THERAPY

There have been books written about using urine as a therapy. Urine is actually filtered blood. You might liken our kidney system to a reverse osmosis system. You know how good reverse osmosis works to cleanse water - the kidney does an admirable job too. Urine is anti-bacterial, anti-fungal, and anti-viral.

As in most filtration systems, minute particles do sneak past - those that are really, really small - like bacteria and viruses. These minute pathogens then can be used like a homeopathic treatment when you feed them back into the body. Bush people have always used urine therapy for treating sickness, as have many missionaries. I have heard people drinking their urine after being bitten by a rattlesnake, after contracting a strange virus. I remember my grandmother dropping some urine into her ear for an ear infection. Apparently it has been used for just about everything: colds, cancer, mono, candida, M.S., bowel disease, sinus infections, allergies and on and on. There has even been a world conference regarding using urine as a healing agent!

Apparently urine contains a lot of nutrients and we have heard of people stranded in the desert, with no water in site, keeping alive by drinking their own urine. I think the moisture played a bigger part in keeping them alive than the nutrients. Urine is a sterile liquid, 95% water and 5% waste (urea, creatine, sodium, potassium, chlorine, magnesium). 3,000 chemical substances have been identified in urine.

Here are some ways we have heard or used with urine therapy:

A mixture of potato and sulphur powder, mix with heated old urine – use against hair loss. Rub into scalp. Also good for dandruff.
For throat inflammation. Add a little saffron to the urine and gargle.
Trembling hands and knees – wash with your own warm urine directly onto the skin after urinating.
For distempers inward and outward.
For scurvy – drink your own urine in the morning for 9 days.
For dropsy and jaundice.
Wash your ears with warm urine for deafness and other ear ailments.
Wash eyes with your urine to help sore eyes, clearing and strengthening the sign.
For numbness, chaps, sores, joints – wash and rub hands with it.
For any green wound.
Watch away any itches of the skin.
Use against piles or other sores.
Ear aches and infections: put urine in ear, plug it up with toilet paper, or tissue to prevent leakage.
If you store it, put into dark brown glass bottle.

Energetically consider urine to be a hologram of healthy as well as diseased body fluids. All information from the body fluids is collected and stored in the urine.

To use your own urine in a homeopathic fashion:

> **First, collect midstream urine in a clean cup or container. This should be a clean catch, meaning the genital area (important for women in particular) has been cleaned beforehand. To 9 drops of pure water in a sterile bottle, add one drop of fresh urine. Cap and shake or pound 5 times. Take one drop of this mix and add to another 9 drops of distilled water and shake 5 times. Take one drop of this mix and add to 1/6 oz. of vodka or brandy which acts as a preservative. You can use teaspoons instead of drops eg. 1 tsp urine, mixed with 9 tsp pure water, then pound 5 times on your palm of hand; take 1 tsp of that mix and dilute it with 9 tsp of water and continue. Six**

dilutions is usually enough.

DOSAGE: Place three drops under the tongue hourly until there is obvious improvement or temporary exacerbation of symptoms. As improvement progresses, lengthen the interval between treatments. After 3 days, suspend treatment to avoid pushing the immune system. Treatment is resumed if progress remains static or relapse occurs. Begin with oral drops then increase dosage as needed.

Use fresh urine drops direct. For some cases, sub-lingual drops work well.
You should always use fresh urine immediately upon collection. Do not boil or dilute the urine in any way. You must use it in its natural form)

Start by taking 1-5 drops of morning urine on the first day. On the second day, take 5-10 drops in the morning. On the third day, take 5-10 drops in the morning, and the same amount in the evening before you go to bed.

Once you feel accustomed to the therapy, gradually increase the amount as needed for obtaining results for your condition. As you use the therapy, you will learn to adjust the amount you need by observing your reactions to the therapy. It may be that you'll work up to actually drinking an ounce or two at a time.

It is estimated that 25% of the urea in an adult finds its way into the intestines where it is decomposed into ammonia by intestinal bacteria. Some of this ammonia ends up in the liver where part of it is converted into urea and another part is converted into glutamine, a useful amino acid. Because of its healing effect on ulcers and wounds in the intestinal canal, glutamine is essential in the maintenance and construction of specialized tissue, such as in the brain, the small intestine and in the growth and activity of the mucous membrane.

Professor Evangelos Danopoulos, who used urea in treating breast cancer, liver cancer, and several other kinds of cancer. He experimented with injecting urea mixed with a saline solution in and around skin cancer and as a treatment for breast cancer. He conducted research on drinking urea dissolved in water in order to fight liver cancer, and reported positive results. In 1969, Danopoulos did a study on oral urea treatment in treating liver cancer. He gave 2-2.5 grams of pure synthetic urea to 18 patients with liver cancer, four to six times daily in capsules, syrup, or as powder. Out of those patients, eight had primary carcinoma and ten had tumors with liver metastases. In the primary-cancer group, two patients were alive after 57 and 36 months. In four patients, death seemed to be related to an interruption of urea treatment where they reportedly stopped their treatment after feeling better. And two patients died of apparently detached illnesses. The average survival period with the urea treatment was 26.5 months, five times greater than any previous reports, without or without the urea treatment.