

# Take Charge of your Health

## Water: The overlooked nutrient

We can live weeks without food, but no more than a week without water. For health, we need a balance of fluids for all of our cells to function properly.

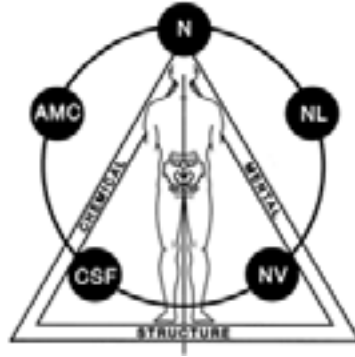
Our body consists of 50 – 80% water. These fluids are what carry nutrients, waste products, and minerals to our cells. The fluid in our body can be divided into two main groups - fluid inside our cells (intracellular fluid) and fluid outside our cells (extracellular fluid).

Fat cells do not contain a lot of water, so if you are overweight, you will have less intracellular water than a thinner person. In a healthy person, the intracellular water should be about 40% of your total weight, and your extracellular fluid around 20% of your total weight.

How is water used in our body?

It fills out and gives shape to the cells like the skin.

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## Your Thyroid

It is estimated that almost 15,000,000 Americans suffer from hypothyroidism. This is a condition where your thyroid gland produces too little hormone. Your thyroid gland takes an amino acid called tyrosine and attaches iodine molecules to it. This creates two hormones called T3 and T4. The difference between these two is the number of iodine molecules that are attached to the amino acid.

Chronic iodine deficiency leads to a condition called, “goiter”. If you have goiter you will have a large lump at the base of your throat. This was common years ago before salt was fortified with iodine. The other source of iodine is seafood. However, today many people have reduced their intake of seafood due to concerns with mercury contamination.

When your production of thyroid hormone decreases dramatically there are a number of symptoms that will appear. These include:

- Severe fatigue or exhaustion
- An unexplained weight gain or difficulty losing fat
- Constipation
- Menstrual irregularities
- Dry, pale or itchy skin

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In older women, puffiness of the face  
Thinning hair  
Cold intolerance

Blood tests are usually used to diagnose hypothyroidism. One of the problems is that there is a large range of values that are generally accepted as being normal findings. Many doctors now look for optimal levels and a much narrower range that is normal. Most blood values are determined by statistical norms. Usually this means that only 2 1/2% of the population is found below the lower level and 2 1/2% above the upper level. You can have blood values near the lower levels or the upper levels and have symptoms which will not be treated until you get “sick enough”.

In the center of your skull you have a gland called the “pituitary”. The pituitary controls or at least attempts to control the level of your thyroid hormone. It does this by secreting a controlling hormone called “thyroid stimulating hormone” or TSH. If your thyroid starts to produce too much thyroid hormone then the TSH level decreases. If your thyroid produces too little hormone your pituitary tells your thyroid to produce more by

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# Treatment Options

## What you can do!

In most cases, you will have to avoid putting excessive stress on the wrist. This includes activities like leaning on your hand to support yourself.

For example, injuries at the wrist commonly follow falling and breaking the fall with your hand.

Proper manipulation of the bones of the wrist followed by corrective therapy to the ligaments and muscles of the wrist and forearm need to be done.

The most important muscle is one that rotates your forearm from a palm up to a palm down position. This is called pronation.

The action of twisting a screw driver as to tighten a screw actually leads to weakening of the forearm muscles that support both the elbow and the wrist.

Testing needs to be done to see if these muscles need therapy and home exercises.

These are combined with avoiding activities that cause excessive pressure on the wrist and possibly the use of a brace or tape to support the ligaments of the wrist.

## What is carpal tunnel?

Carpal tunnel refers to the passageway that is formed at the wrist where the nerves, tendons, and blood vessels go through.

Normally this is just like a tunnel that you would drive a vehicle through. However, if the roof of the tunnel drops or the tunnel becomes smaller due to changes in tissue or swelling, then pressure is applied against the nerves and the blood vessels.



## How does this happen?

This condition can result from repetitive use of the hand, as in typing or in using a screwdriver. It is also found after a fall where you catch all of your weight on your hand. Another examples include, using your hand like a hammer or pushing on something such as scrubbing a counter or floor.

Injuries at the wrist usually cause problems with

# Carpal Tunnel



the major nerves that cross over the wrist into the hand. There are two major nerves which are involved, one is the median nerve and is found in problems that are loosely named "carpal tunnel". The other nerve is the ulnar nerve. This nerve also goes through a tunnel as it passes down from the forearm into the hand.

## What are the symptoms of a carpal tunnel?

The median nerve entrapment is the most common problem. This nerve supplies the major muscles of the thumb. Pinching of the nerve at the wrist can cause tingling or lack of sensation in the thumb and first finger. There will be weakness of the grip due to the failure of the thumb to be able to contract fully.

The ulnar nerve is found on the little finger side

of the hand and supplies the little finger and one muscle of the thumb. Entrapment of this nerve will cause symptoms usually around the little finger. They are similar to those of the median nerve described above.

These nerve entrapments occur because the bones in the wrist become altered from their normal positions. If you put your hand up in front of you with the palm down, the bones of the wrist

*tingling, and weakness of the grip followed by muscle atrophy*

would normally form the roof of a tunnel. In the case of the median nerve, "carpal tunnel", the roof has fallen placing pressure on the nerve. The ulnar nerve becomes stretched when the side of the tunnel moves outwards. Usually, we find



these two conditions at the same time.

There are two simple tests that you can use to



### **Be careful of the nutritional products you use**

Most people think that all vitamin supplements are alike. Unfortunately, there can be huge differences in quality and the lowest price often means poor quality and potentially harmful impurities. Prescription drugs and over the counter medicines are subjected to rigorous standards and routine inspections by the Food and Drug Administration. But in the nutritional supplement industry, the standards are much more lax, and it is left up to the manufacturer to maintain high quality in manufacturing and in raw material selection.

Fish oils, rich in omega-3 fatty acids, are being consumed in higher quantities all the time. But are they all safe? The fatty fish that the oils are derived from stand at the top of the marine food chain. As such, all of the toxins we release into the environment end up in their flesh, primarily in the fat or oil. It requires significant processing at a considerable expense to remove the last traces of all the different toxins such as mercury, dioxins, PCBs, etc. The steps in this processing are collectively referred to as molecular

distillation. Not all manufacturers purchase such highly purified oils. The oils need to be handled properly and mixed with sufficient amounts of vitamin E to prevent them from going rancid. Again, this raises the price of the oil.

Many physicians are now recommending glucosamine to their patients with joint pain. Glucosamine is actually derived from the shells of crustaceans such as lobsters and crabs. It is actually possible to simply grind these shells into a powder and put it into tablets or capsules and sell it as glucosamine. This powder is less than 50% glucosamine by weight and may contain all sorts of impurities, depending on how clean the water the shell fish came from. Manufacturers of glucosamine typically supply vitamin companies with a range of products running the gamut from ground up shells to a highly purified pharmaceutical grade product, which is typically more than 99.99% pure. You can imagine the difference in prices and their effectiveness.

Herbal products pose even more problems. Depending on where the plants were grown, they may be contaminated with impurities. Oftentimes the plant is known to contain certain active ingredients or marker compounds.

Ideally, it is processed so that it contains a specific amount of the ingredient known to be associated with activity and benefit. These are called standardized extracts. Recent press reports have shown that many companies are selling products that have far less than the label claim for the active marker and some have been shown to be contaminated with heavy metals or pesticides.

The most expensive product is the one that doesn't work or may actually harm the patient.

This office uses supplements from a company that has been GMP certified by the National Nutritional Foods Association. This certification is voluntary. It ensures that the company's facilities meet the highest standards for manufacturing. It costs millions of dollars to become GMP certified. You can go to their website at [www.NNFA.com](http://www.NNFA.com) to get a list of companies that have been GMP certified. This office is confident that the supplements we use are clean, pure, effective and without contamination.

Can you say the same about the \$5 bottle of pills at the discount store?

One of the problems in reading nutritional articles is that they tend to center many times on one nutrient. While clinical studies are done exploring the benefits of a single nutrient, studies confirm that they work better when used in conjunction with other nutrients. For example, a study was done with heart patients where they took just one or two nutrients and compared the results to patients who took the nutrients in combination with other vitamins and minerals. The patients who took the multiple micronutrient supplements showed the best improvement.

Another study of over 2000 stroke patients showed that there was a 20% reduction in the likelihood of having a second stroke if a combination of nutrients was added to their diet.

Consequently, if you read about a specific nutrient helping any condition, always consider adding it into your diet along with a good broad spectrum multivitamin. This forms the basis of your nutritional approach. To this you add nutrients that are specific for your personal conditions.

Using this approach you increase your odds of having a positive outcome and bettering your health.

# Eye Health

The two leading causes of eyesight loss are cataracts and macular degeneration. Estimates are that this will affect over 30 million Americans. There have been advances in the treatment of cataracts but there is been little to help the 13 million people with macular degeneration.

Ironically, studies have shown that lens replacement to correct cataracts developing macular degeneration has shown to increase the risk by up to 4 times.

There are numerous studies that show that these diseases are partially caused by poor nutrition.

We will start with cataracts. The eye has a lens just like a camera. Our lens can change its shape so we can see things either close to us or farther away due to its elasticity. As we age, especially over 50, this elasticity is lost. This occurs because of free radicals which in turn causes cataracts. When you look in the eye you see cloudiness, this is the cataract. The most common cataract begins in the center of the lens and slowly extends outwards and is associated with aging.

Another type of cataract starts on the outside of the lens and grows inward. Another type

starts behind the lens and extends forward and is commonly seen in diabetics, steroid users and people with retinitis pigmentosa.

People with the most risk for developing cataracts are those over the age of 50, people with blond hair and blue eyes, people working outdoors, not wearing sunglasses with UVA and UVB protection, smokers, individuals with poor nutrition, history of cardiovascular disease, individuals with elevated blood homocysteine levels, diabetics, and anyone with chronic inflammatory diseases.

Sunlight is the major cause of damage to the lens and is aggravated by those with poor nutrition or chronic inflammation in the body. Diabetics for example have a higher incidence of cataracts. (this sounds like two different topics in one paragraph - not cohesive)

Animal studies have shown that in increase of dietary sugars increases cataract formation. Highs sugar diets cause the production of toxic substances that are classified as advance glycation end products or AGEs. These products increase free radical damage.

Numerous studies have shown that diets that are high in the antioxi-

dants significantly reduce cataract formation. These include vitamin C, vitamin E, selenium, and beta-carotene. Other studies have shown that lutein and zeaxanthin are also superior protectors against cataracts. These substances are found in spinach, broccoli and eggs. Other potential beneficial substances are ones found in bilberry extracts and carnosine.

On the negative side, statin drugs, used to lower cholesterol, may increase the progression of cataracts as seen in the warning labels of these products.

There are two forms of macular degeneration - the dry form that accounts for 90% and is related to aging and the wet form that makes up 10%. The wet form is the worst and progresses much faster. The wet form is commonly found in smokers. In macular degeneration everything in the center of your vision becomes blurred and you lose perception of color with things becoming dull.

Scientists have not figured out why this condition occurs but it has been associated with high levels of free radicals and lipid peroxidation in the retina that is a result of chronic inflammation.

Consequently, macular degeneration and poor nutrition are found together.

Patients with macular degeneration have been found to have low levels of lycopene, lutein and zeaxanthin. Other studies have shown that zinc deficiencies play a role in macular degeneration.

To help protect your eyes from developing cataracts there are a number of things that you can do nutritionally. First is to limit or dramatically reduce omega 6 oils, trans fatty acids, partially hydrogenated oils, excess sugar, MSG and aspartame. The next is to eat five servings of fresh fruits and vegetables. The more colorful they are the more antioxidants are found in the food.

You should take a multivitamin high in antioxidants that does not contain iron. Other nutrients that you can consider taking are lutein, carotenoids, vitamin E, bilberry, and riboflavin. For macular degeneration, you may want to consider increasing zinc, omega 3 oils, curcumin, and magnesium.

Finally, invest in a good pair of sunglasses that blocks both types of bad sunlight, UVA and UVB. Wear them when you're in the bright sun.

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It is part of the lubricant in our joints and our eyes.

It is part of the temperature regulation system – sweating. It is the main component of blood and carries the cells and nutrients around the body. It is essential for digestion and absorption. It removes waste products from the body through urine, feces, and sweat. It is essential for many chemical reactions.

When you drink, water is absorbed slowly from the intestinal tract. The maximum absorption is approximately a quart per hour.

When you are thirsty, you are experiencing the major regulator of fluid intake. One of the problems is that when we are thirsty, our brain is asking for water, not juice, coffee, tea, soda, beer or any other beverage. Thirst is caused by small changes in the extracellular fluid that causes the mucous membranes of the mouth to become dry. This in turn stimulates a part of the brain to cause the sensation of thirst.

Normally, the brain then monitors the amount of fluid being taken in to return the normal balance in the extracellular fluid. This of course is dependant on what you drink. Remember, your body assumes that you are drinking water, not other beverages.

If you choose to drink a

diuretic like an alcoholic beverage, then you will quickly become thirsty again and drink more to attempt to bring your body back into equilibrium.

You can easily guess what happens if you choose the wrong beverage. If you choose one with high sugar content like soda, you will take in excess calories trying to bring your body back into balance. If you choose alcohol products, you will slowly increase your drinking trying to get back into balance and instead consume too much alcohol.

As you can guess, many people do not drink enough water. If you are on the low intake side, you are more prone to constipation, kidney stones, decreased physical performance, and increased risk of colon, breast and urinary cancers.

There are many different formulas to determine how much water you should drink. One source indicates that you should have 1 – 1.5 ml of water for every calorie of food that you eat.

Other sources are simpler – drink 6 or 8 glasses a day. The problem with this recommendation is that it does not take in to account variables like your body size, the outside temperature, your physical activity, etc.

A simple method is that your kidneys should be putting out urine at

a specific rate. That means if you are taking in enough water, you should have to urinate every 2 to 3 hours during the day.

If you adjust your fluid intake to maintain this rate, you will have adequate water intake to keep your body fluid levels functioning, as they should.

If you do not have enough water in your body and its cells, you will have some of the following symptoms... dizziness, irritability, extreme thirst, dry skin, dry mucous membranes, wrinkles, joint aches, and increased heart rate.

If you have questions about your fluid intake, please ask us. Sometimes, increasing water intake can make dramatic changes in your overall health.

## **Nutrients Your Eyes Need**

### **Vitamin A**

Carrots contain a high level of vitamin A.

It has been shown to aid in reducing the risk of cataracts.

Vitamin A is found in many orange, red, and yellow fruits and vegetables and in leafy green vegetables.

### **Lutein**

Lutein is a carotenoid that your body turns into an antioxidant. Lutein is the primary carotenoid located in the center of the retina, called the macula.

Six mg. of lutein has been shown to reduce the risk of macular degeneration by nearly 57%.

A diet low in lutein greatly increases the chance of developing cataracts.

Clinical studies show that the minimum daily intake should be 6 mg. of lutein.

### **Vitamin C**

Vitamin C has been linked to the prevention of cataracts, the delay of macular degeneration, and eye pressure reduction in glaucoma patients.

### **Bilberry**

Studies show that bilberry appears to fortify blood vessel walls, improving blood flow to the tiny blood vessels that keep eyes healthy and functioning properly, as well as to larger blood vessels that help maintain good circulation throughout the body. It also has been shown to help prevent macular degeneration and cataracts.

The studies used between 80-160 mg. of the standardized extract as the amount needed to obtain the above-mentioned benefits.

## Taking Your Basal Temperature

This home test that can give you a rough idea of your thyroid function.

It is better to use a glass thermometer rather than a digital one.

Shake down the thermometer before you go to bed and place it next to the bed.

Go to sleep without any extraneous heat source such as an electric blanket or heated water bed.

When you wake up in the morning, or after 4 hours of sleep, place the thermometer under your armpit. Leave it there for at least ten minutes.

Women who menstruate should take their temperature over the first 3 days of their period and average the numbers. Women who have had a hysterectomy but still have at least one ovary should do this test over a period of 14 days and use the 3 days with the "lowest" readings. Men and postmenopausal women can test for any 3 days and average the median temperatures.

Normal axillary body temperature is between 97.6 and 98.2 degrees fahrenheit. Temperatures below that are suggestive of low thyroid function.

## Nutrient: Iodine

Iodine is a mineral that is essential for the normal metabolism of cells. It is necessary for normal thyroid function and the production of thyroid hormone.

The thyroid gland absorbs iodine from the blood and combines it with the amino acid, tyrosine to produce the thyroid hormones.

There are two thyroid hormones - T4 and T3. T3 is the physiological act to thyroid hormone and is converted from the T4 by selenium dependent enzymes.

Consequently, a selenium deficiency will exacerbate the symptoms of an iodine deficiency.

Thyroid hormone has a regulatory effect on growth, metabolism, and reproductive functions, to name a few.

Table salt, which has iodine added to it, has become the major food source of iodine for most individuals. All seafood is naturally rich in iodine.

One possible problem with eating some seafood is that farmed fish may not be grown in ocean waters where iodine is present.

Seaweed, such as kelp, is another common source of iodine.

Vegetables grown in iodine rich soil are also a good source of iodine. Seaweed which is used as a fertilizer helps increase the iodine content of the foods that are grown in that soil.

Iodine deficiencies occur in places with iodine poor soil. A lack of iodine in an individual's diet will slowly lead the person to develop an under-functioning fibroid and possible goiter. This is a condition where the thyroid enlarges at the base of the throat.

Women are more susceptible to a deficiency, especially in pregnant women.

In adolescents, an iodine deficiency has been associated with poor school performance, lower IQ tests, and an increase in learning disabilities.

In adults, the most common symptoms are impaired mental function, fatigue, weight gain, cold intolerance, and constipation.

There are some foods that contain substances

that interfere with iodine utilization and consequently fibroid hormone production. These are called goitrogens.

The most common food associated with goitrogens is soy. Other foods include the cruciferous vegetables such as cabbage, broccoli, cauliflower, and brussel sprouts.

These are only important if these foods are taken in excess. This can be a common problem in vegetarians who depend upon soy as their main source of protein.

Iodine therapy can help many women with fibrocystic breast disease. In one study over 50% of the women taking iodine reported a dramatic decrease in tenderness and lumpiness in their breasts.

## Stretching - Legs

### Calf stretch

Place your left foot approximately 18 inches behind your right foot.



Slowly bend your right leg forward, keeping your left knee straight and your heel flat on the floor.

Hold your back straight and lean forward until you feel the stretch in the muscle.

Keep your legs and feet straight ahead.

Hold for about 15 seconds.

Switch legs and repeat.

In time, bend your back knee to increase the stretch.

### Hamstring stretch

Keeping your knee slightly bent, place your leg on a chair or bench or lie on your back on the floor and put your leg on a wall



Gently straighten your knee until you feel a stretch along the back of your left thigh.

Hold for about 15 seconds.

Switch legs and repeat.

### Quadriceps stretch

Stand near a wall for support.

Bend your knee and reach back to grab your ankle and gently pull your heel up and back until you feel a stretch in the front of your thigh.

Blow out all of your air to tighten your stomach muscles.

Hold for about 15 seconds. Repeat with other leg.



### Hip flexor stretch

Kneel on your right knee. If you have pain doing this, put a foam pad or folded towel under your knee.

Bend your left knee and have your left foot in front of you.

For stability, you can put your hands on the forward leg.

Lean forward, you will feel a stretch in your right thigh. To increase the stretch, you can move your right leg back slightly.

Hold for 15 seconds. Repeat with the other leg.

### Iliotibial band (ITB) stretch

The iliotibial band (ITB) is a thick tissue that runs along the outside of your leg from



the pelvis to just below the knee. Stand near a wall for support.

Cross your left leg over your right leg at the ankle. Place your left hand over your head and lean to the right.

You'll feel a stretch along your left hip. Hold and repeat on the opposite side.

### Knee-to-chest stretch

Do this stretch gently.

Lie on your back or lean back against a wall or door.

Gently pull one knee up to the shoulder on the same side until you feel a stretch in your lower back.

Bring the knee as close to your chest as comfortably possible.

If you do this lying, keep the opposite leg relaxed.



## Stretching Rules

Stretching should be done before any strenuous activity.

This includes yard work, moving furniture and doing any moderate to heavy lifting.

Stretching can increase your flexibility and improve the range of motion of your joints. Before stretching, warm up by walking.

Keep stretching gentle.

Do not bounce.

If you feel pain, you have stretched too far.

Hold a stretch for about 10 - 15 seconds, then switch sides and repeat.

Stretching time can be reduced by turning your eyes in the direction of the part being stretched.

## Next Month

Whiplash -

Hip Joint

Olive oil

The Adductors

Garlic

ADHD

Researchers in Sweden have found that chocolate intake decreases the chances of having a stroke.

The minimum intake is equivalent to 2 candy bars a week.

### **Exercise and Depression**

Recent research has shown that increasing physical exercise can dramatically reduce levels of depression. In a report by Medscape, a medical database, one doctor reports a patient being able to stop anti-depressant medication after starting a running regimen. The doctor concludes that all psychiatrists should be encouraging their patients to increase exercise in order to reduce the necessity of medication.

see if someone may have this condition. The first is testing the strength of the thumb and little finger. Have the person place these two fingers together and gently pull apart. Weakness can be caused by any problem affecting the nerve. This can be in the neck, shoulder area, elbow or at the wrist. To stress the wrist joint, place the back of your hands together and point your fingers straight down with your elbows out to the side. If this position cannot be held for one minute without symptoms, then the person being tested is a strong candidate for carpal tunnel.

What happens if it isn't treated?

The longer this condition continues the more permanent the loss of strength, the greater the degree of loss of sensation and numbness in the hand. The symptoms can radiate up the arm to the elbow. Left untreated, this becomes a surgical problem. Some studies have shown that surgery can be successful in as few as 35% of the cases. Other studies show a higher success rate.

One of reasons for this is that there are more than five areas where the nerve can become entrapped. Some patients may have all five of these areas needing treatment. It is very seldom that we find only the nerve entrapped at the wrist. A complete applied kinesiology exam of the areas where the nerves can become entrapped leads to a proper treatment of this condition.

In the end, it is the patient who has to alter how they use their arm and hand to avoid the condition from reoccurring.

increasing the TSH. The form of thyroid hormone produced by your thyroid gland is T4. The problem is that your body's cells cannot use T4. It has to be converted into T3 by the removal of one of the iodine molecules and this is the form that your cells use to control your metabolism.

One of the environmental factors that can decrease the transformation of T4 to T3 is fluoride. If your thyroid is under-functioning just a little, you will start to develop fatigue, muscle spasms, thinning of the hair, elevation of cholesterol and triglyceride levels, a slow progressive weight gain, and depression. For many people there is a direct correlation between cholesterol levels and thyroid function.

A simple home test can be done taking your axillary temperature. When you wake in the morning place a thermometer in your armpit, and take your resting basal temperature. Normal values should be between 97.8 and 98.2. If your resting level is way below this, then you may have an under-functioning thyroid.

Remember, thyroid hormone is created from an amino acid called "tyrosine". One of the first dietary considerations is that you have sufficient protein intake in your diet. Next, you must have adequate iodine intake. Because many people are reducing their intake of salt, they are getting less iodine into their diet. Foods from the sea or kelp are other sources of iodine that can be added into the diet.

If you have any of the symptoms above, and have a lowered axillary temperature, you should be checked for abnormal thyroid function. For most people, dietary changes can dramatically change your health. If it is gone on too long or is too severe, you may need to supplement your thyroid hormone with a prescription drug.