

Weighing In Newsletter

October 2011

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ALL ABOUT THE THYROID

A brief look at thyroid disorders.....

The things that can go wrong with your body when your thyroid function is low are so pervasive and extensive it's startling. So many of the difficulties and indignities we learn to live with, thinking they're an inevitable part of aging, are actually the result of low thyroid function and are reversible. As you read this, you may find it hard to believe that your thyroid can have such powerful effects throughout your body. But the truth of the matter is that adequate thyroid function plays an important role in maintaining good quality of life as we age and staying free from pain and disease. Our basic bodily functions, general well-being, appearance, energy levels, mental function, emotions, and even our very sanity all depend on adequate thyroid function. Because symptoms that affect physical appearance often show up initially (and can be so distressing), let's look at them.

- PHYSICAL APPEARANCE -

As we age, we certainly want to take advantage of everything that can keep us youthful, attractive, and svelte. Who needs plastic surgery when maintaining good thyroid function is a cheap, noninvasive way to stave off accelerated aging? When you take a close look at the impact low thyroid function can have on all parts of your body, you'll realize that you need to take your thyroid seriously in order to age gracefully.

HAIR

Since hair and skin are some of our fastest growing tissues, we often notice slowing metabolism in these areas first. Hypothyroidism leads to hair that is dry, brittle, and dull. It also becomes straighter, finer, and thinner and may even turn gray prematurely. Thin, uneven, patchy gray hair isn't the look we're after as we head into our forties or fifties! Another sign of low thyroid function, discovered over a century ago, is the loss of the outer third of the eyebrows. Body hair and eyelashes also often disappear.

SKIN

Slowing thyroid function takes a big toll on the skin. The first signs are coarse, dry, sallow, pale, unhealthy looking skin, which also may get very itchy (Owen and Lazarus 2003). This can progress to acne, red spots, boils, premature wrinkling, yellowing or grayish skin, rashes, and even eczema or psoriasis. Adequate thyroid function is necessary for good blood circulation, so hypothyroidism results in inadequate blood flow throughout your body. When this happens, blood is preferentially sent to your brain and vital organs to keep essential functions going.

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Our skin may be our largest organ, but in hypothyroidism it takes a backseat to survival, and as a result, it isn't properly nourished and replenished by the oxygen that blood provides. Poor circulation can also lead to the development of varicose veins.

Skin can also get puffy and swollen, particularly on the face, arms, and front of the thighs due to fluid building up in the connective tissues. This condition, known as myxedema, is a side effect of slowed metabolism. It's caused by an accumulation of waste products that aren't effectively removed from the tissues. Connective tissue is everywhere in the body, so this swelling doesn't affect just physical appearance; it also impacts the function of the glands, organs, and cells as they become infiltrated with this jellylike substance. In fact, this swelling may affect only internal tissues and organs, without showing any external signs.

FACE

When thyroid function is low, the face, particularly around the eyes and jaw line, often gets puffy; this, too, is caused by myxedema. Reduced kidney function caused by the general slowing of metabolism also leads to fluid retention, particularly around the eyes and in the hands and ankles.

This is a different type of edema and can be distinguished from myxedema by pressing your finger on it; if it leaves a depression that lasts for a longer period of time than is normal, it's due to reduced kidney function rather than myxedema. As hypothyroidism progresses, the entire face can develop a coarse look, with swelling or thickening of facial features.

FINGERNAILS AND TOENAILS

Slow-growing, soft, ridged, brittle nails with pale nail beds are a sign of low thyroid function.

The crescent-shaped white area at the base of the nail bed often gets lighter or disappears altogether. This can be due to reduced blood circulation or inadequate protein synthesis, another effect of the general slowing of metabolism in hypothyroidism (Jabbour 2003). Ingrown toenails and fungal infections are also common.

TEETH AND MOUTH

Excessive tartar buildup and cavities can be caused by low thyroid function (Noren and Alm 1983). Excess tartar causes red, swollen, and receding gums (which can be made worse by low estrogen), hence the old saying "getting long in the tooth." Gum recession isn't always a reliable sign of hypothyroidism; however, as gum disease due to hypothyroidism can also cause gums to become swollen and overdeveloped and extend down over the teeth instead of receding.

In long-standing hypothyroidism, the mouth can appear large and the lips puffy and coarse. The color inside the mouth is often pale, and the palate may be more vaulted than usual (Barker, Hoskins, and Mosenthal 1922). Temporomandibular joint syndrome (TMJ syndrome) is also common as hypothyroidism causes problems with muscles and ligaments.

In addition, both edema and clenched teeth due to chronic muscular tension can affect the jaw and cause the pain and muscle spasms of TMJ syndrome.

WEIGHT

With hypothyroidism, we don't metabolize food effectively and the calories we consume turn into fat instead of energy. This weight gain is insidious, and neither diet nor exercise resolves it.

When weight gain is caused strictly by low thyroid function and not other endocrine deficiencies as well, fat tends to be symmetrically distributed on the body (Barker, Hoskins, and Mosenthal 1922). When low pituitary function is at the root of low thyroid function, weight gain is generally confined to the area from your abdomen to just above your knees. The skin of a person with hypothyroidism also takes on a flabby look, as overall musculature is affected, too. Bear in mind that being overweight is an issue that goes beyond mere appearances, as it increases your risk of many diseases and health conditions.

FEET AND LEGS

Do you have weak knees, or have you become flat-footed or bowlegged in recent years? All of the ligaments in your body can be affected by low thyroid function. They will tend to relax and can cause conditions like flat feet, weak knees, knock-knees, hyperflexibility of joints, propensity for sprains, and even scoliosis. Early on in hypothyroidism, the knees often get weak. This starts with a feeling of unreliability in the knees, as if your knees might give out if you were to break into a jog or even a fast walk.

The first sign that your ligaments are being affected is often a flattening of the arches of your feet. When they flatten, your foot rotates inward, which can result in painful calluses on the sides of your big toes and sore, aching feet. Another sign of relaxing ligaments is aching palms (Jacobs-Kosmin and DeHoratius 2005).

VOICE

Although it can't be seen, the voice is an obvious indicator of age and health. Due to swelling in the throat, many women with hypothyroidism start to sound more weak and tired. The voice often gets deeper and softer and also more hoarse or nasal. Speech can become deliberate and slow, and as the condition progresses, articulating words may become difficult, causing stumbling over words and slurred speech (Madariaga et al. 2002). These difficulties can stem from swelling of the lips and tongue.

As with being overweight, changes to the voice have impacts beyond the impression you make on others. The swelling of the throat responsible for voice changes also causes difficulties with swallowing, so choking on small objects is common. If the uvula (the little punching bag in the back of your throat) and tonsils swell, this can cause snoring and an inability to breathe through the nose.

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EARS

Not only does low thyroid function result in chronic ear infections due to lowered immune function, it can also result in impaired hearing and abnormal physical ear placement. If long-standing, hypothyroidism can cause the ears can be set lower on the head and protrude more, while also becoming more swollen or thicker than normal. Overall hearing is diminished and excessive earwax is common (Brucker-Davis et al. 1996). Low thyroid function can also cause tinnitus and result in hearing strange noises, such as clicking, ringing, or buzzing sounds or the sound of running water.

POSTURE

As our thyroid function declines, so does our ability to hold ourselves upright. Posture is one of the markers of aging, with stooped and slumped posture being part and parcel of the look of old women. Poor posture may be caused by the fatigue so common in hypothyroidism, or by the bone weakening and osteoporosis that also occur. This slumping is exacerbated when the abdomen protrudes due to relaxing musculature and swelling of the stomach caused by constipation.

MUSCULATURE

Few things signal aging more than flabby, diminishing muscles. Our muscles are closely tied to the metabolic process, and when it slows, they start to lose their tone and contours. The weight gain we experience at the same time obscures them even more. But again, this goes beyond appearances.

Normal activities will become more difficult as the muscles also get tired easily and often feel heavy, and mobility can be impaired by an increased tendency to stumble or experience muscle cramps (Argov et al. 1988).

Even though we checked thyroid levels of the weigh station very frequently, you can still be hypothyroid and not know it. We have to keep looking for the disorder. Sometimes it may take us months to find. Recently, there literature has pointed to a low temperature gradient. Some patients, we find have core temperatures of 96.5 to 96. Even these patients may benefit from low dose thyroid replacement. Continuing research is being done on core temperatures in hypothyroid patients. If you have any concerns that you may be suffering from some of the above complaints, please don't hesitate to contact us personally myself or Dr. Dums.

Thank you for the trust that you put in us to care for your weight loss needs.

-Chuck Shaffer M.D.

Nitrates and Nitrites

At The Weigh Station we always encourage our clients to cook, cook, cook! However, we do know that some have demanding jobs and little time for food preparation. These clients need grab and go proteins and often turn to processed, precooked foods to get their proteins in. If you eat bacon for breakfast, hot dogs for lunch and turkey pepperoni as a snack this article is for you! Although these are approved proteins on our plan, you still need to be diligent when reading nutrition labels. All of these foods have one thing in common, they are full of nitrites!!! Other nitrate containing foods include; ham, luncheon meats, corned beef and smoked fish. But why should you be concerned, after all you are losing weight....

Nitrates unfortunately are a preservative that come with a list of health risks if consumed in high amounts over a period of time. Numerous studies have found that nitrates could increase your risk for cancer. Specifically colorectal, stomach and pancreatic cancers. In a study done by the American Medical Association, people who consumed the highest amount of processed meats were at 50% higher risk of acquiring colon cancer. The risk was even higher for pancreatic cancer (68%) according to the Journal of the National Cancer institute. In addition, a review of 15 studies showed that those who increased their consumption of processed meat by 30 grams increased their risk of stomach cancer by 23%.

This isn't the only risk, those who ate more than 14 servings of cured meats over 1 months time had lower scores on their lung function tests and were at an increase risk for Chronic Obstructive Pulmonary Disease (COPD) compared to individuals who avoided cured meats. For each additional serving per month this risk grew 2%. Some hot dogs also contain DNA mutating nitrates that affect the gut and in turn have been linked to colon cancer risk. Finally, a study published in Public Health Nutrition found that when nitrates were consumed during pregnancy the baby was at 2 to 3 times higher risk for brain tumors.

Fortunately your favorite convenient proteins can still be enjoyed! The key is to read the ingredients list on the nutrition label and avoid sodium nitrates and nitrites. Supermarkets are now offering a variety of nitrite/nitrate free products. One caution is that they are often still cured with other naturally occurring preservatives like salt or SUGAR! To make even healthier choices also look for grass-fed products free of artificial flavors, colors and byproducts. Two good brands to look for are: Applegate Farms organic and natural meats as well as Coleman natural hot dogs. Also remember it is still best to cook when you can, fresh is always best :)

Making bone broth:

With the cold weather on its way, many are asking for good soup recipes. Why not take this a step further and learn how to make your own bone stock? It's both delicious and nutritious and versatile as well adding tons of flavor to any dish!

Beef bone broth:

After you have cooked a meal that has leftover bones, use them in a slow cooker and set on low. Cover with filtered water. Add a couple splashes of vinegar to draw the minerals out of the bones. Then season with fresh parsley and a bay leaf. Depending on what you plan to do with your broth, you could also add a little onion and a couple cloves of garlic. Allow to cook overnight on low. Turn the crock pot off by noon the next day and allow to cool. Then refrigerate it.

Chicken and Turkey Bone Broth

Use the bones leftover from your Thanksgiving turkey for stock! You will need a large stock pot since your working with lots of bones. Cover the bones with water and add a tablespoon of vinegar. Add the desired seasonings after the broth is done. Since you are using a stock pot instead of a crock pot it's best to let the broth cook during the day so you can keep an eye on it. Start it early in the morning and let it simmer on low until dinner.

How to use the broth:

1. Season and use it as a hot drink with any meal or as an energy-giving snack.
2. Use as a base for a vast array of thin or thick soups and stews.
3. Use as a base for sauces to go on veggies, meats, even salads.
4. Braise vegetables in a small amount of stock. Then consume both the veggies and the cooking liquid.
5. Use as part of the liquid added at the end when stir frying.

Save it for soup or use it as part of the sauce for what you just cooked in it.

My husband and I normally use it to make soups. We add our favorite stage 2 vegetables to the stock and a protein of choice and allow it to cook on medium heat until the veggies are tender and the meat is cooked through. This soup is full of good nutrition including all the minerals from the bones!

The 10 Minute Workout

This month I would like to address a common barrier that affects many people. That barrier is time! Many of us spend so much time taking our children to practice, cooking healthy dinners and helping our communities that finding time for our own health is challenging. Now throw in a career full of deadlines, bosses and late meetings and exercise is the last item on a very long list. For those of you who can relate, you are not alone! But, if you do not take time for yourself and your health, you will not be helping anyone for very long. This is where the 10 minute workout comes into play.

In your book, we recommend a low impact cardiovascular routine that will improve your health, self image and keep your metabolism elevated to facilitate weight loss. Also outlined is a progression that, if followed, will get you on track with minimal risk of injury or soreness. This routine involves working up to 30-45 minutes 5-6 days per week and is what I recommend for the best results while in our program. However, if you have a time restricted schedule you can perform a higher intensity, shorter duration routine and still obtain positive results. Continued.....

I would like to go over a few things before I list a sample 10 minute routine, the first is intensity. Intense does not necessarily mean hurried or quick, actually, in some cases slower IS more intense. Take squats for example. A slow controlled squat will use more muscle fibers and will have an increased range of motion compared to doing them fast. Second is form. With increased intensity comes higher risk of injury and your form needs to be excellent to lower this risk. Using our squat example again, keeping your weight on your heels, maintaining an upright position and keeping a tight core will relieve knee stress and lower back stress which are two common areas of pain when starting this exercise. Third is mental focus. When performing at higher intensities, you must be focused on what you are doing. You need to consciously think about the muscles involved and how they are contracting. You also need a distraction free environment that will allow you to maintain this focus. Finally, you must progress over time. Progression is an important part of any exercise routine and if you start off doing too much you will become so sore you will not be able to perform daily tasks. On the other hand, if you do too little you are just wasting your time. Your routine should start gradually with 1-2 sessions per week (more if you have already been exercising some) and should work up gradually. Keep adding one more day of exercise per week until you are completing 5-6 sessions.

Sample 10 Minute Workout

For this workout you will need the following items; 55cm stability ball, 1 exercise band of appropriate strength.

Stability ball squats: Start with stability ball positioned between the small of your back and a wall. Keep your feet at shoulder width and slowly walk them out until you are leaning against the ball. Lower yourself down while pushing your butt back. Your spine should be in a mild "C" shape. The goal is to lower yourself down until your thighs are parallel to the floor.

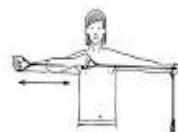
Contra-laterals: Start on your hands and knees, raise your right arm and left leg (leg straight) until they are in line with your torso. Hold for one second then lower and repeat with the opposite arm/leg.

Bridges: Lay on your back, arms at your side, knees bent, feet flat on the floor. Push through your heels, squeezing and raising your bottom off the floor until you are straight from your shoulders to your knees.

Band triceps extension: Hold a band in front of your chest with your hands gripping at shoulder width. Keep your left elbow firmly against your side and bring your right elbow up until parallel to the floor. Push your right arm away from you to the right. Reverse this process for the left arm.

Band arm curls: Stand on the center of a band with feet at shoulder width and your knees slightly bent. Hold the band at each end. Slowly curl your left hand up to your shoulder and slowly lower it down. Then repeat for your right side.

Pass back: Lay flat on your back with arms overhead holding the ball. Bring your legs toward your head while bringing the ball towards your legs. Raise your head and shoulder blades off the floor while passing the ball from your hands to between your ankles. Holding the ball with your ankles, lower your legs and arms back to a 45 degree angle. Arms and legs should be straight at all times. Do not let your feet come all the way down to the floor.



In order from above left: ball squat, contra-laterals, bridge, band tricep extension, Band arm curls and pass back