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## ICK Newsletter May 2010

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### Fatigued or Full Throttle: Is Your Thyroid to Blame?

Understanding Thyroid Problems -- Symptoms and Treatments

Feeling all revved up, even at bedtime? Or maybe your throttle's on idle with symptoms of depression, fatigue, and weight gain. In both cases, the root cause may be your thyroid.

The thyroid -- a butterfly-shaped gland in the front of your neck -- makes hormones that control the way your body uses energy. Your thyroid controls your metabolism, which is how your body turns food into energy, and also affects your heart, muscles, bones, and cholesterol.

While thyroid disorders can range from a small, harmless goiter (enlarged gland) to life-threatening cancer, the most common thyroid problems involve an abnormal production of thyroid hormones. Too much of these vital body chemicals results in a condition known as hyperthyroidism. Too little hormone production leads to hypothyroidism.

Although the effects of thyroid problems are unpleasant or uncomfortable, most thyroid conditions can be managed well if properly diagnosed and treated.

#### What is an overactive thyroid?

Hyperthyroidism happens when the thyroid becomes overactive and produces too much of its hormones. Hyperthyroidism affects women five times to 10 times more often than men, and is most common in people younger than 40. People with hyperthyroidism have problems that reflect overactivity of the organs of the body, resulting in symptoms such as sweating, feeling hot, rapid heartbeats, weight loss, and sometimes eye problems.

Hyperthyroidism can occur in several ways:**Graves' disease:** The release of excess hormones is triggered by an autoimmune disorder. For some unknown reason, the body attacks the thyroid, causing it to spill out too much hormone.

**Toxic adenomas:** Nodules (abnormal growths or lumps) develop in the thyroid gland and begin to secrete thyroid hormones, upsetting the body's chemical balance; some goiters may contain several of these nodules.

**Subacute thyroiditis:** Painful inflammation of the thyroid causes the gland to enlarge and "leak" excess hormones, resulting in temporary hyperthyroidism, which resolves spontaneously. Subacute thyroiditis generally lasts a few weeks but may persist for months.

**Pituitary gland malfunctions or cancerous growths in the thyroid gland:** Although rare, hyperthyroidism can also develop from these causes.

**Silent thyroiditis:** Usually a temporary state of excess thyroid hormone release causing mild hyperthyroidism. In some cases it can result in permanent damage to the thyroid and low thyroid hormone production by the gland.(cont on page 2)

### Job Opportunities

If you are the owner of a gym or fitness studio and require the services of fitness personnel then let us know by email, [admin@collegeofkinesis.com](mailto:admin@collegeofkinesis.com) and we will place your ad in the June 2010 issue free of any charge. The International College of Kinesis accepts no responsibility for the accuracy of the advertisements placed.

Advertisements are placed solely as a free service to the fitness and related industries.  
The ICK team.

### Successful THETA visit

**On the 23<sup>rd</sup> of APRIL 2010 ICK had a very successful visit from THETA and as a result thereof our accreditation was extended to 13<sup>th</sup> of MARCH 2013.**

**A number of students were accredited on the day and wish to extend our congratulations to them and wish them all well with careers.**

**If you want to become accredited then visit our website, [www.collegeofkinesis.com](http://www.collegeofkinesis.com) for more info.**

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**Postpartum thyroiditis:** A type of hyperthyroidism that occurs in a small percentage of women within months of delivery. It lasts only a few months, followed by a several months of reduced amounts of thyroid hormone production by the gland. Typically these women fully recover normal thyroid function.

**Ingestion of excess thyroid hormone** can result in hyperthyroidism.

## What is an underactive thyroid?

Hypothyroidism, by contrast, stems from an underproduction of thyroid hormones. Since your body's energy production requires certain amounts of thyroid hormones, a drop in hormone production leads to lower energy levels, causing you to feel weak and tired.

Approximately 25 million people suffer with hypothyroidism and about half are undiagnosed. Older adults -- particularly women -- are more likely to develop hypothyroidism than younger adults. Hypothyroidism also tends to run in families.

If hypothyroidism is not treated, it can raise your cholesterol levels and make you more likely to have a heart attack or stroke. During pregnancy, untreated hypothyroidism can harm your baby. Luckily, hypothyroidism is easy to treat.

Causes of hypothyroidism may include:

**Hashimoto's thyroiditis:** In this autoimmune disorder, the body attacks thyroid tissue. The tissue eventually dies and stops producing hormones. Other autoimmune disorders occur with this condition and other family members may also be affected by this condition.

**Removal of the thyroid gland:** The thyroid may be surgically removed or chemically destroyed as treatment for hyperthyroidism.

**Exposure to excessive amounts of iodide:** The heart medicine amiodarone may expose you to too much iodine. Radioactive iodine treatment for hyperthyroidism can also result in hypothyroidism. You may be at greater risk for developing hypothyroidism, especially if you have had thyroid problems in the past.

**Lithium:** This drug has also been linked as a cause of hypothyroidism.

If left untreated for a long period of time, hypothyroidism can bring on a myxedema coma, a rare but potentially fatal condition that requires immediate hormone injections.

## How is hyperthyroidism diagnosed?

Your doctor will ask you about your symptoms and do a physical exam. Then he or she will order blood tests to see how much thyroid hormone your body is making. In addition, your doctor may discover that you have hyperthyroidism while doing a test for another reason.

### Signs and Symptoms:

- You may feel nervous, moody, weak, or tired.
- Your hands may shake, your heart may beat fast, or you may have problems breathing.
- You may be sweaty or have warm, red, itchy skin.
- You may have more bowel movements than usual.
- You may have fine, soft hair that is falling out.

You may lose weight even though you eat the same or more than usual.

## How is hypothyroidism diagnosed?

Your doctor will ask questions about your symptoms. You will also have a physical exam. If your doctor thinks you have hypothyroidism, a simple blood test can show if your thyroid hormone level is too low.

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### Signs and Symptoms

- You may feel tired, weak, and/or depressed.
- You may have dry skin and brittle nails.
- You may have difficulty standing cold temperatures.
- You may have constipation.
- You may experience memory problems or trouble thinking clearly.
- You may have heavy or irregular menstrual periods.

Symptoms of hypothyroidism occur slowly over time. At first you might not notice these symptoms. Or you might mistake them for normal aging. This is not normal aging. See your doctor if you have symptoms like these that get worse or won't go away.

Pregnancy, which requires an increased production of thyroid hormone, can cause hypothyroidism. About 2% of pregnant women in the United States get hypothyroidism.

### How is hyperthyroidism treated?

Hyperthyroidism is easily treated. With treatment, you can lead a healthy life. Without treatment, hyperthyroidism can lead to serious heart problems, bone problems, and a dangerous condition called thyroid storm.

If your symptoms bother you, your doctor may give you pills called beta-blockers. These can help you feel better while you and your doctor decide what your treatment should be. Even if your symptoms do not bother you, you still need treatment, because hyperthyroidism can lead to more serious problems.

Radioactive iodine and anti-thyroid medicine are the treatments doctors use most often. The best treatment for you will depend on a number of things, including your age. Some people need more than one kind of treatment.

After treatment, you will need regular blood tests. These tests check to see if your hyperthyroidism has come back. They also check to see if you are making enough thyroid hormone. Sometimes treatment cures hyperthyroidism but causes the opposite problem-too little thyroid hormone. If this happens, you may need to take thyroid hormone pills for the rest of your life.

### How is hypothyroidism treated?

Doctors usually prescribe thyroid hormone pills to treat hypothyroidism. Most people start to feel better within a week or two. Your symptoms will probably go away within a few months. But you will likely need to keep taking the pills for the rest of your life.

In most cases, thyroid hormone medication works quickly to correct symptoms. People with hypothyroidism who take thyroid hormone medication usually notice:

- Improved energy level.
- Gradual weight loss (in people with severe hypothyroidism at the time of diagnosis).
- Improved mood and mental function (thinking, memory).
- Improved pumping action of the heart and improved digestive tract function.
- Reduction in the size of an enlarged thyroid gland (goiter), if you have one.
- Lower cholesterol and triglyceride levels.

It's important to take your medicine just the way your doctor tells you to. You will also need to see your doctor for follow-up visits to make sure you have the right dose. Getting too much or too little thyroid hormone can cause problems.*(cont on page 4)*

## Want to know how our Electronic courses work?

Email me, at [admin@collegeofkinesiology.com](mailto:admin@collegeofkinesiology.com) for your **free copy** of the DEMO DVD which will show you how easy it is to study in the privacy of your own home. Please provide your postal details as the DVD will be posted to you free of charge. The information provided on this DVD will also show how easy it is to do the short courses i.e. the Indoor cycling course



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If you have mild (subclinical) hypothyroidism, you may not need treatment now. But you'll want to watch closely for signs that it is getting worse.

### Thyroid disease or menopause?

According to the American Association of Clinical Endocrinologists (AACE), millions of women with unresolved menopausal-like symptoms, even those taking estrogen, may be suffering from undiagnosed thyroid disease. While symptoms such as fatigue, depression, mood swings, and sleep disturbances are frequently associated with menopause, they may also be signs of hypothyroidism.

A survey done by the AACE showed that only one in four women who have discussed menopause and its symptoms with a physician was also tested for thyroid disease. The thyroid plays a role in regulating overall body metabolism and influences the heart, brain, kidney, and reproductive system, along with muscle strength and appetite.

If you are experiencing symptoms of menopause and the symptoms persist despite appropriate therapy, ask your doctor to do a thyroid screen (TSH). A blood sample is all that is needed to make the initial diagnosis of hypothyroidism and treatment is easily achieved with thyroid replacement therapy.

### What about thyroid cancer?

Cancer of the thyroid gland is quite rare and occurs in less than 10% of thyroid nodules. You might have one or more thyroid nodules for several years before they are determined to be cancerous. People who have received radiation treatment to the head and neck earlier in life, possibly as a remedy for acne, tend to have a higher-than-normal propensity for thyroid cancer.

#### Signs and Symptoms:

- You may get a lump or swelling in your neck. This is the most common symptom.
- You may have pain in your neck and sometimes in your ears.
- You may have trouble swallowing.
- You may have trouble breathing or have constant wheezing.
- Your voice may be hoarse.
- You may have a frequent cough that is not related to a cold.

Some people may not have any symptoms. Their doctors may find a lump or nodule in the neck during a routine physical exam.

Most people who have treatment for thyroid cancer do very well, because the cancer is usually found early and the treatments, including surgery, work well. Once treated, thyroid cancer rarely returns.

## Pancreatic Cancer Linked to Sodas?

Study Says 2 Sodas Per Week Raises Pancreatic Cancer Risk; Beverage Industry Says Study Is Flawed

Feb. 8, 2010 -- Drinking as little as two soft drinks a week appears to nearly double the risk of getting pancreatic cancer, according to a new study.

"People who drank two or more soft drinks a week had an 87% increased risk -- or nearly twice the risk -- of pancreatic cancer compared to individuals consuming no soft drinks," says study lead author Noel T. Mueller, MPH, a research associate at the Cancer Control Program at Georgetown University Medical Center, Washington, D.C. The study is published in *Cancer Epidemiology, Biomarkers & Prevention*, a journal of the American Association for Cancer Research.

The beverage industry took strong exception to the study, calling it flawed and pointing to other research that has found no association between soda consumption and pancreatic cancer.

Cancer of the pancreas was diagnosed in about 42,000 people in the U.S. in 2009, according to American Cancer Society estimates, and about 35,240 deaths from the disease were expected. The pancreas lies behind the stomach. It makes hormones such as insulin to balance sugar in the blood and produces juices with enzymes to help break down fats and protein in foods.

### Sodas and Pancreatic Cancer Risk: Study Details

Previous studies have produced mixed conclusions about whether consumption of soft drinks boosts the risk of pancreatic cancer.

So Mueller and his colleagues evaluated 60,524 men and women enrolled in the Singapore Chinese Health Study, begun in 1993, for up to 14 years, looking at their diet and whether they got cancer.

They asked all participants about food intake, including sodas and juices. Mueller says the researchers didn't ask specifically about diet soda consumption, but that most of the soda drunk was regular or sweetened.

In Singapore at that time, Mueller says, there was very little intake of diet soda.

"We followed the participants for 14 plus years, keeping track of different cancers," he tells WebMD.

They found 140 cases of pancreatic cancer and looked back to see if there was an association with sodas or juices. (Cont pg5)



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## Sodas and Pancreatic Cancer Risk: Study Results

The researchers divided the consumption of sodas and juices into three categories: none, less than two servings a week, or two or more servings a week. Those who drank two or more a week -- the average number was five -- had the 87% increased risk, Mueller tells WebMD.

No link was found between juices and pancreatic cancer risk.

Why the link with sugary sodas? Mueller says they are not certain. "What we believe is the sugar in the soft drinks is increasing the insulin level in the body, which we think contributes to pancreatic cancer cell growth. That increase in insulin is what may be leading to the development of the cancer."

His team adjusted for other risk factors, such as advancing age, smoking, diabetes, and body mass index. The risk for pancreatic cancer rises with age.

### Sodas and Pancreatic Cancer: Industry and Other Views

The beverage industry protested the results. "The study has a lot of weaknesses in it," Richard Adamson, PhD, scientific consultant for the American Beverage Association in Washington, D.C., tells WebMD.

One example, he says, are the small numbers of pancreatic cancer cases. He points out that of the 140 cases, 110 of those people did not drink sodas, while 12 had less than two servings a week, and 18 had two or more servings a week.

"It has a small number of pancreatic cancer cases compared to the population studied," he tells WebMD.

Other studies have found no link, he tells WebMD. In a statement attributed to Adamson, the American Beverage Association points to a 2008 study finding no such link. It also takes exception to the focus on soft drinks rather than overall dietary patterns.

"You can be a healthy person and enjoy soft drinks," the statement reads. Susan Mayne, PhD, associate director of the Yale Cancer Center and professor of epidemiology at the Yale School of Public Health, called the study results "intriguing" in a statement but cautioned that the study finding was based on a relatively small number of cases and does not prove cause and effect. She is an editorial board member of the journal. The study was funded by the National Cancer Institute.

## I would like to share this comment, received from Lesley Cowan, which I received on the previous newsletter: (thank you for your comment it is most appreciated)

Great newsletter. I've already forward it on.

What he says about strokes/blood pressure is so true.

3 weeks ago my doctor was stressing about my blood pressure (148/90) and my kidneys - and the impact on both. With advice from a physician, he suggested we wait a month before putting me on blood pressure pills. I asked what I could do - and he said the usual - diet and exercise.

I've been measuring my blood pressure twice a day and this is what I found.

- 1) After a typical gym workout (not with Jannie ☺ but on my lazy own.) 151/90
- 2) After a 30 minute run (5km) 133/86
- 3) After a one and half hour cycle up a mountain. 117/72
- 4) And after that cycle ride, now back to doing a bit of exercise (running/gym) as per usual - around 121/80

So it proves his point about 'hectic exercise.'

### HAVE YOUR SAY!!

Email your comments on any of the articles in this newsletter or any previous newsletters to [info@collegeofkinesiology.com](mailto:info@collegeofkinesiology.com) and we might just publish it



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## Top 9 Fitness Myths -- Busted!

Think you know the facts about getting fit? You may be surprised to learn how many are really fiction.

It's easy to fall into the trap: A workout buddy passes along an exercise tip, and then you pass it on to several folks you know. Your kid's coach gives you advice, and sure enough you hear the same thing from several other parents. So you figure it must be true. But experts say that in the world of fitness, myths and half-truths abound – and some of them may be keeping you and your family from getting the best and safest workout.

"Some myths are just harmless half-truths, but many others can actually be harmful," says professional triathlete and personal coach Eric Harr, author of *The Portable Personal Trainer*. "They can cause frustration in working out and sometimes even lead to injury," he notes.

One reason myths get started, says Harr, is that we all react to exercise a little differently. So what's true for one person may not be true for another.

"In this sense you sometimes have to find your own 'exercise truths' – the things that are true for you," says Harr. That said, experts say there are also some fitness myths that just need busting, and the sooner the better!

To help put you and your family on the path to a healthier, safer, and more enjoyable workout, WebMD got the lowdown from several top experts on what's true and what's not when it comes to exercise tips.

### **Fitness Myth No. 1: Running on a treadmill puts less stress on your knees than running on asphalt or pavement.**

"Running is a great workout, but it can impact the knees -- and since it's the force of your body weight on your joints that causes the stress, it's the same whether you're on a treadmill or on asphalt," says Todd Schlifstein, DO, a clinical instructor at New York University Medical Center's Rusk Institute.

The best way to reduce knee impact, says Schlifstein, is to vary your workout.

"If you mix running with other cardio activities, like an elliptical machine, or you ride a stationary bike, you will reduce impact on your knees so you'll be able to run for many more years," says Schlifstein.

### **Fitness Myth No. 2: Doing crunches or working on an "ab machine" will get rid of belly fat.**

Don't believe everything you hear on those late-night infomercials! Harr says that while an ab-crunching device might "help strengthen the muscles around your midsection and improve your posture," being able to "see" your abdominal muscles has to do with your overall percentage of body fat. If you don't lose the belly fat, he says, you won't see the ab muscles.

But can doing ab crunches help you to lose that belly fat? Experts say no.

"You can't pick and choose areas where you'd like to burn fat," says Phil Tyne, director of the fitness centre at the Baylor Tom Landry Health & Wellness Centre in Dallas. So crunches aren't going to target weight loss in that area.

"In order to burn fat, you should create a workout that includes both cardiovascular and strength-training elements. This will decrease your overall body fat content," including the area around your midsection, he says.

### **Fitness Myth No. 3: An aerobic workout will boost your metabolism for hours after you stop working out.**

This statement is actually true -- but the calorie burn is probably not nearly as much as you think!

Harr says that while your metabolism will continue to burn at a slightly higher rate after you finish an aerobic workout, the amount is not statistically significant. In fact, it allows you to burn only about 20 extra calories for the day. While there's a little bit more of a metabolic boost after strength training, he says, it's still marginal.

"It doesn't really count towards your caloric burn," he says.

### **Fitness Myth No. 4: Swimming is a great weight loss activity. (cont page 7)**



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While swimming is great for increasing lung capacity, toning muscles, and even helping to burn off excess tension, Harr says the surprising truth is that unless you are swimming for hours a day, it may not help you lose much weight.

"Because the buoyancy of the water is supporting your body, you're not working as hard as it would if, say, you were moving on your own steam -- like you do when you run," says Harr. Further, he says, it's not uncommon to feel ravenous when you come out of the water.

"It may actually cause you to eat more than you normally would, so it can make it harder to stay with an eating plan," he says.

#### **Fitness Myth No. 5: Yoga can help with all sorts of back pain.**

The truth is that yoga can help with back pain, but it's not equally good for all types.

"If your back pain is muscle-related, then yes, the yoga stretches and some of the positions can help. It can also help build a stronger core, which for many people is the answer to lower back pain," says Schlifstein.

But if your back problems are related other problems (such as a ruptured disc) yoga is not likely to help, he says. What's more, it could actually irritate the injury and cause you more pain. If you do have back pain, get your doctor's OK before starting any type of exercise program.

#### **Fitness Myth No. 6: If you're not working up a sweat, you're not working hard enough.**

"Sweating is not necessarily an indicator of exertion," says Tyne. "Sweating is your body's way of cooling itself."

It's possible to burn a significant number of calories without breaking a sweat: Try taking a walk or doing some light weight training.

#### **Fitness Myth No. 7: As long as you feel OK when you're working out, you're probably not overdoing it.**

One of the biggest mistakes people tend to make when

starting or returning to an exercise program is doing too much too soon. The reason we do that, says Schlifstein, is because we feel OK while we are working out. "You don't really feel the *overdoing it* part until a day or two later," he says.

No matter how good you feel when you return to an activity after an absence, Schlifstein says you should never try to duplicate how much or how hard you worked in the past. Even if you don't feel it at the moment, you'll feel it in time, he says -- and it could take you back out of the game again.

#### **Fitness Myth No. 8: Machines are a safer way to exercise because you're doing it right every time.**

Although it may seem as if an exercise machine automatically puts your body in the right position and helps you do all the movements correctly, that's only true if the machine is properly adjusted for your weight and height, experts say.

"Unless you have a coach or a trainer or someone figure out what is the right setting for you, you can make just as many mistakes in form and function, and have just as high a risk of injury, on a machine as if you work out with free weights or do any other type of non machine workout," says Schlifstein.

#### **Fitness Myth No. 9: When it comes to working out, you've got to feel some pain if you're going to gain any benefits.**

Of all the fitness rumours ever to have surfaced, experts agree that the "no pain-no gain" holds the most potential for harm.

While you should expect to have some degree of soreness a day or two *after* working out, Schlifstein says, that's very different from feeling pain *while* you are working out.

"A fitness activity should not hurt while you are doing it, and if it does, then either you are doing it wrong, or you already have an injury," he says.

As for "working through the pain," experts don't advise it. They say that if it hurts, stop, rest, and see if the pain goes away. If it doesn't go away, or if it begins again or increases after you start to work out, Schlifstein says, see a doctor.