

# **INSIDE:**

Wintertime Workouts
Can You Tell Who Has
Cellular Inflammation?
Fight Off Winter Weight



## By Kristin Sears

One of the most popular winter health topics is how to combat the Winter Blues—the lethargic, irritable feelings we sometimes experience as the days get darker and the temperature dips below 45 degrees.

Google "winter blues" and 12 million articles pop up with advice to eat better, exercise more, and my personal favorite, use indoor sun lamps! What if typical cold weather gloom is heightened because of a chronic disease? That's the case for the estimated 20 million Americans who have some form of thyroid disease, the most common type being hypothyroidism, like me.

Those with hypothyroidism have an underactive thyroid gland that can't make enough thyroid hormone to keep the body running normally. With too little thyroid hormone in the blood, it upsets

the normal balance of chemical reactions in your body.

Hypothyroidism can have many impacts on the body, including low blood pressure, decreased heart rate, nervous system tingling, depression, brain fog, slowed metabolism and more.



# My Journey: Diagnosed with Hypothyroidism

Up to 60% of those with thyroid disease are unaware of their condition. Many are diagnosed after their hormones erupt during pregnancy. Others are diagnosed with age, or if they've had a tumor in their thyroid gland. I was not diagnosed any of those ways. I just had a dad (Dr. Sears) that was smart enough to spot it when I was 17.

My father was writing Chapter 13 on Hypothyroidism for his newest book at the time, *The Anti-Aging Zone*. While jotting down the condition's symptoms (stunted height, stunted weight, being cold all the time) he looked at his 5'3" daughter (he's 6'5") who was shivering in her winter coat while indoors in April. Then he noticed her crying because she was too fatigued to do her homework. This is what he called his "aha moment."

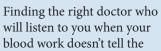
Luckily, my dad had some friends at the Broda O. Barnes, MD Research Foundation in Connecticut. After an examination and days of testing, I was diagnosed with hypothyroidism, also known as underactive thyroid.

The diagnosis left me relieved because there was finally proof that something was actually afflicting me. Having a name for it meant it could be remedied. It also left me more energized emotionally and physically. Prior to my diagnosis, I briefly dabbled in the world of anti-depressants that left me so lethargic I'd had to dictate my term papers and college essays for my mom to type up. With my new meds, I was able to finish high school with grades that got me into college.

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# Finding the Right Doctor Is Critical

I've found that my hypothyroidism has changed with time and I've needed my levels adjusted over the years. I've gone from Synthroid, to Armour Thyroid to Nature-Throid medications.





whole story can be difficult. The good ones will look for the hormone thyroxine, more commonly called T-4, and reverse T-3. (TSH, a thyroid-stimulating hormone, is an inaccurate indicator.) Even with a doctor who specializes in hormones (an endocrinologist), getting the right dose is still trial and error. Sometimes it's magnesium that's the missing link; sometimes it's vitamin D. One time, I took birth control and gained 40 pounds because it affected my hormones.

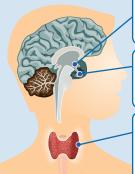
After many depressing appointments where my blood work would appear "normal," I broke down and begged for extra T-3 to be added. It worked. I took Liothyronine for 3 years until my energy, mood and weight got back on track. Fun fact: I would've never known to ask for Liothyronine had it not been for the Zone Cruise where I talked to a few fellow Zoners who also suffered the many downsides of hypothyroidism.

What helps keep my thyroid levels afloat when my meds fail? The Zone Diet.

# **How the Zone Diet Helps Your Thyroid**

The calorie restriction (without hunger) of the Zone Diet increases AMP kinase (activated protein, anti-aging enzymes) production in

the cells. Less thyroid hormone is therefore required to maintain ATP levels (adenosine triphosphate—the biochemical way to store and use energy). Meanwhile, increased satiety helps moderate thyroid action since the signals from the hypothalamus



Hypothalamus Brain region that controls the pituitary gland.

#### Pituitary Gland Secretes many different hormones, some which affect other glands.

Thyroid Gland Secretes hormones that influence metabolism, growth & development & body temperature.

are connected to the production of thyroid that stimulates hormone production in the pituitary gland.

What does this mean in English? If you eat less calories yet stay full from eating balanced Zone meals, your depleted thyroid won't have to work so hard to function.

The Zone Diet reduces inflammation, thereby reducing the need for cortisol to be released to control excess inflammation. Cortisol is a stimulant that appears to activate the thyroid response. The Zone Diet stabilizes blood sugar levels so that hydrocortisone doesn't need to be released to convert protein into glucose.

For those like me looking for some light at the end of the shadowy thyroid tunnel, find the right doctor who will listen and will get the appropriate blood work done. And most importantly, make sure you stay in the Zone.







# Can You Tell Who Has Cellular Inflammation? I Can.



By Dr. Barry Sears

You cannot tell by looking at a person whether or not they have cellular inflammation. The only way to know is through their Cellular Inflammation Score. The benefit of reaching an ideal score is to help support heart health, brain function, behavior and mood regulation, athletic performance, vision and cellular rejuvenation—everything that constitutes wellness.

An ideal range for the Cellular Inflammation Score is between 1.5 and 3. For comparison, the average Cellular Inflammation Score of the Japanese population (the largest consumers of fish in the world) is about 1.5, whereas the average American has a score of 20. However, each person likely requires different dosages of omega-3 fish oil to get to this range. My minimum suggestion has always been 2.5 grams of EPA and DHA per day.

# **Your Cellular Inflammation Score Defines Wellness**

There is more than 25 years of published research to validate the use of the Cellular Inflammation Score as a clinical marker of inflammation. Yet, research studies are not always applicable to real-life situations. That's why I developed the Zone Cellular Inflammation Test. This simple at-home test requires just one drop of blood to measure two key fatty acids and tells you with precision whether or not your body can effectively resolve inflammation.

# Test, Don't Guess: An In-House Experiment to Determine Inflammatory Status

I decided to put my recommendations to the test with our Advantage customers who receive regular shipments of OmegaRx. Since many Advantage customers have been receiving OmegaRx for more than a decade, this was an excellent group to test whether my minimum recommendation of 2.5 grams of EPA and DHA was really enough. I say "minimum" because not everyone is genetically the same. Some people will need even more omega-3s to reach an ideal Cellular Inflammation Score of less than 3. Others might need less.

So I offered a free Cellular Inflammation Test to all of our Advantage Customers who regularly receive OmegaRx fish oil to see what their Cellular Inflammation Scores were. All results were tallied while maintaining full confidentiality.

















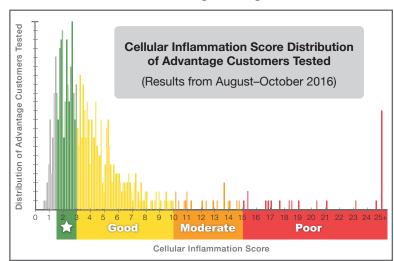






# Advantage Customers Have 75% Reduction in Cellular Inflammation Score vs. Average Americans

# The Results: More than Half of our Advantage Customers Are Not Taking Enough Fish Oil



The good news is that 37% of Zone Advantage customers tested achieved a Cellular Inflammation Score within the "Target" range of 1.5 and 3.0.

The average score of all our Advantage customers was 4.7. While this is good, and better than about 75% of Americans, it is still not an ideal score as a judge of future wellness. 48% of our Advantages customers had a Cellular Inflammation Score less that 3. That means that even among our most committed customers, more than half still require higher levels of EPA and DHA in fish oil to reduce their scores into the ideal range.

The test data also revealed that 11% of Advantage customers tested scored below the target range of 1.5. In rare circumstances, those whose score dip as low as 0.7 or less could be at risk of not being able to mount an adequate inflammatory response to microbial invasion. To get back into the ideal range, these customers simply need to take less fish oil.

# **Studies Support the Need for More Omega-3s than Minimum Recommendations**

Harvard Medical School was the first to report the use of the Cellular Inflammation Score in The New England Journal of Medicine<sup>1</sup>.

In this study, high doses of EPA and DHA (5 grams per day, or double my recommended minimum level) were given to healthy subjects for 10 weeks. With this increased intake of EPA and DHA, it was demonstrated that reductions of inflammatory cytokines were significantly reduced as their Cellular Inflammation Score decreased by nearly 90% from 21 to 2.5. Once the supplementation of EPA and DHA was stopped, the Cellular Inflammation Score in the subjects returned to its original level along with a corresponding increase in the cytokine markers of inflammation.

This study supports the concept that you must have adequate intakes of EPA and DHA for a lifetime if you want to manage diet-induced inflammation. How much? It depends. That's why you need to know your Cellular Inflammation Score. If the Harvard data from 28 years ago still holds true today, then the average American probably requires about five grams of EPA and DHA per day.

## **Take Control of Your Future Wellness Now**

Taking adequate levels of EPA and DHA per day remains the fastest way to reduce diet-induced inflammation, which is the underlying cause of why we gain weight, develop chronic disease and accelerate the aging process.

However, taking a lot of fish oil means it has to be incredibly pure. That's why I pride myself on having establishing the highest standards in the industry for OmegaRx. To maintain our leadership, the next generation of fish oil products, OmegaRx 2, takes these purity standards to even higher levels than those established for prescription fish oil products.

Zone Labs is built upon the concept of Evidence-Based Wellness®. This means that an individual's blood will indicate whether or not they are well. The Cellular Inflammation Score is a key component to that concept. Once you have your Cellular Inflammation Score, if it is above 3, just follow the anti-inflammatory Zone Diet for a lifetime and take adequate levels of OmegaRx 2 to bring your Cellular Inflammation Score into the target range of 1.5 and 3.0. Almost half of our Advantage customers are doing so today, and my job is to get that level up to 100%. The next step is to do the same for the rest of America.

Reference: 1. Endres S et al. "The effect of dietary supplementation with n-3 polyunsaturated fatty acids on the synthesis of interleukin-1 and tumor necrosis factor by mononuclear cells." N Engl J Med 320:265-271 (1989).

# **Wintertime Workouts:** Feel the Burn in the **Coldest Months**

By Lisa Zeigel

Runners become addicted to their weekly runs. Walkers love their routines and the adventure that comes with traversing their favorite routes. Others love winter sports and activities in the snow. However, the winter weather can make it challenging to protect yourself from the elements while exercising. The good news is that technology has made it easier to enjoy outdoor activity no matter what temperature, and following these tips can ensure you can stay fit year-round.

## **Know the Weather Before You Venture Out**

Weather prediction technology has become more accurate than ever. Before heading outdoors, check the hourly forecast. Conditions can change from bad to worse in a flash, so having an idea of what to expect can help you plan your workout and avoid getting caught in a severe storm.

Once you're outdoors, even if it's cloudy, you still need your sun protection. Harmful UV rays can penetrate through cloud cover, and if there is snow around you, these rays can be reflected. Wearing eye protection and sunscreen is always necessary, even in the winter.

# Don't Let Your Fitness Attire Leave You in the Cold

Managing sweat when you are outdoors is essential to avoid its effect of further cooling your skin. One suggestion is to try one or more base layers. These are great for pulling moisture away from the skin and, since they are made with heat-trapping fabrics, keep the upper body warm. These vary in thickness, so you can wear a thick one over a thin one. Same goes for legwear. Base-layer tights can be worn under running tights and running pants. The same moisture-wicking principle holds true for socks.

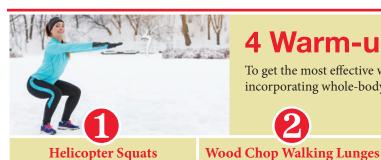


Leaving your head and hands uncovered can make it tough to stay warm. In moderate cold, caps or headbands that cover the ears along with gloves made of knitted fabrics can provide adequate protection. Wearing convertible gloves or layering more than one pair can help if your hands fluctuate between cold and hot as you get moving. And you can tuck hand warmers inside for extra warmth. Finally, wind and water-resistant outerwear can be worn over your layered innerwear.

**Tip for safer running:** Snow-running treads or spikes attached to the soles of your shoes will give you traction in slippery conditions.

#### Workout in the Elements

Getting active in the cold requires the same precautions as exercising in any weather condition. Make sure to get a gradual warm-up to increase your core temperature before reaching full intensity. Pace yourself when running distances to ensure you can make it back home without getting too winded or stuck in sudden bad weather. Consider pairing up with an exercise buddy or a group for safety. Remember to keep your cellphone handy in a waterproof carrying case. Lastly, note that there are cold snaps when it just isn't safe to go outdoors to do anything, let alone exercise. Heed the warnings and try at-home exercises like online or DVD workouts or motion-detecting games such as Wii-Fit). Staying fit throughout the winter will make your spring seem much brighter.



# 4 Warm-up Favorites

To get the most effective warm-up, it's important to gradually increase core temperature by incorporating whole-body movements. Do 3 sets of 12 for each of the following warm-ups:

# **Upper-Body Jack Squats**

# **Helicopter Squats**

Stand tall with your arms extended to your right. As you squat down, swing your arms horizontally across to your left, rotating through the torso. Perform half of the repetitions swinging from right to left, and the other half from left to right. Allow your eyes to follow your hands for maximal rotation.

Stand tall with your feet together and your arms raised. Take a step forward with your right leg, lowering your hips toward the floor by bending both knees to 90° angles. Swing arms across your body and to your right with a chopping motion. Swing your arms back up as you step in with the left foot. As you lunge forward with the left leg, "chop" your arms down to your left.

Stand tall with your arms stretched overhead and your feet hip-width apart. As you squat down, swing your arms down toward the ground, reaching as low as possible. As you stand up, jump or hop and swing your arms back up.

# **Toe Touch Leg Swings**

Stand tall with your arms rigid down by your sides. Begin moving forward while swinging your right foot forward and as high as possible, keeping your right leg straight. Reach toward your foot with your left hand. Alternate sides by swinging your left leg up, and reaching with your right hand.

# **Fight off Winter Weight**

## By Sue Knorr

Bears can afford to pack on the pounds all summer to conserve energy for hibernating all winter, but people cannot. Most of us eat less in the warm months. Then, when the cold hits, we tend to wait for winter to end and spring to begin, snacking our way through the season and catching up on our favorite Netflix shows, before we resume any sort of healthy activity.

Unless those snacks are Zone balanced, we're setting ourselves up for a long winter of increased inflammation in every cell in our bodies, and packing on the pounds. Never fear. The easy solution is to follow the Zone Diet and lifestyle, even in the dead of winter.

# Zone Fundamentals: A Hand, an Eye and a Watch

It's easy to assemble a Zone meal in three simple steps, by dividing your plate into thirds:

- 1. On one-third, place lean protein the size and thickness of your palm.
- 2. Using your eye, fill the other two-thirds with overflowing colorful non-starchy vegetables and smaller amounts of Zone-friendly fruits such as berries. Complete the meal by adding a dash of good fat. The best choices would be a

teaspoon or two of extra virgin olive oil, a small handful of Macadamia nuts or almonds, or a few tablespoons of avocado.

3. Note the time you eat, and don't go more than 5 waking hours without eating a Zone-balanced meal or snack. If you're like me and forget to eat, try setting a 5-hour alarm as a reminder.

If you're tempted to add a slice of bread, keep in mind that the more bread and pasta on your plate, the more inflammation you create. And remember to drink a big glass of water with every meal.

## **Don't Sacrifice Your Pasta**

Instead of traditional pasta, try Zone PastaRx as your ultimate comfort food instead. It does the work of meal-balancing for you without thinking required on your part. Simply boil in water for the time specified, and liberally add colorful vegetables.



If you're craving mac and cheese or lasagna, no problem. Make your favorite recipe substituting the proper serving-size amount of PastaRx for the macaroni or noodles. The possibilities are endless, especially with recipes available on zonediet.com/zonepastarecipes.

# **Take Your Fish Oil Daily**

The EPA and DHA in omega-3 fish oil is crucial for resolving dietary-induced inflammation. What does that really mean for you? Reducing cellular inflammation is crucial for a healthy heart and brain function, vision, healthy skin, increased longevity, athletic performance and recovery, and more. Omega-3 fish oil also improves mood, making it an excellent way to chase away the blues during these cold winter months short on daylight.

Good news for you: Zone recently introduced OmegaRx 2, which is 25% more concentrated than its predecessor, and has a purity standard 18 times more rigid than international standards. Take the Zone Cellular Inflammation Test to learn your level of cellular inflammation and find the amount of fish oil supplementation that's right for you.

#### **Breathe and Relax**

Relaxation is important for lowering cortisol levels. Cortisol is a stress hormone that increases inflammation. Sit quietly and bring your attention to your breathing. Breathe in slowly, pause slightly, and breathe out slowly, devoting about 8 seconds in total to each complete breath. Aim for 7 breaths for 1 minute to start. Repeat throughout the day.



# Find 100's of Zone-friendly

Dishes at zonediet.com/recipes.

# Spinach, Meatball and Chickpea Soup Serves 2

When the frigid temps hit, this easy-to-make soup will warm you from the inside out.

# Ingredients:

31/2 cups Kitchen Basics Unsalted Vegetable Stock

- ½ cup Tomato Sauce
- 1 tsp Garlic Powder
- ½ cup Zone PastaRx Orzo
- 1/4 cup Chickpeas (canned) Red Pepper Flakes (crushed, to taste)
- 2 cups Baby Spinach
- 2 Al fresco Tomato & Basil Chicken Meatballs (quartered)
- 2 tsp Extra Virgin Olive Oil
- 1 Tbsp Pecorino Cheese (grated)
  Salt and pepper (to taste)

#### Instructions:

- 1. Bring the vegetable stock, tomato sauce and garlic powder to a boil in a 2–3 quart saucepan.
- Add uncooked Zone PastaRx Orzo, cover and reduce heat; simmer for 14 minutes.
- Stir in chickpeas, red pepper flakes, spinach and meatballs, then salt and pepper to taste. Continue to cook for 2–3 minutes.
- Ladle into two bowls and top each with 1 teaspoon of extra virgin olive oil and 1/2 tablespoon of pecorino cheese.

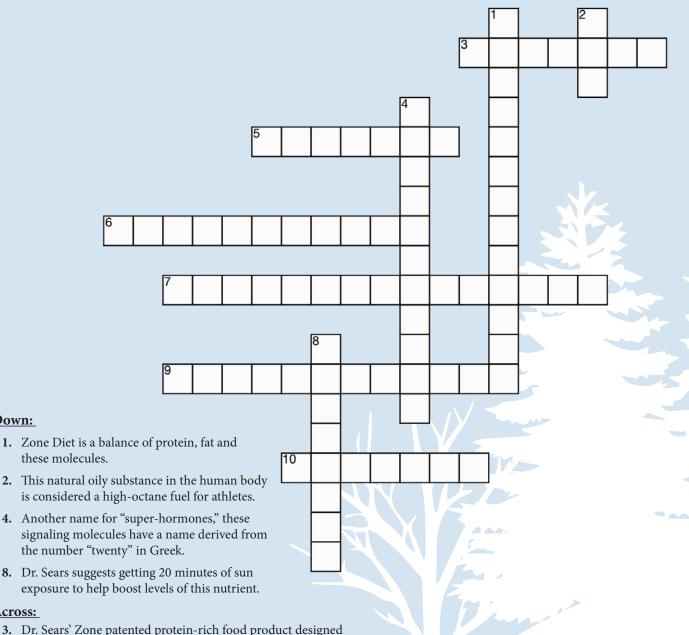


365 groups



Dr. Sears has said, "there are some tantalizing clues on how to reduce Alzheimer's likelihood. It's not by doing crossword puzzles, but by reducing inflammation in the brain."

Still, crossword puzzles can be educational and stimulate the brain. See if you agree.



## Across:

Down:

- 3. Dr. Sears' Zone patented protein-rich food product designed to stabilize blood sugar and curb hunger for hours.
- 5. A storage hormone that is well known to diabetics.
- 6. Class of compounds that can help support good bacteria in your gut.
- 7. Unabbreviated name of one of the two essential fatty acids measured by the Zone Cellular Inflammation Test. EPA is the other.
- 9. An antioxidant, and also a special class of polyphenols that have unique anti-oxidant, anti-inflammatory, and anti-aging properties.
- 10. Containing EPA and DHA, this fatty acid helps support heart health, brain function, mood regulation and cellular rejuvenation.

#### **Answers:**

7. arachidonic acid, 9. delphinidins, 10. Omega3s. Across: 3. PastaRx, 5. insulin, 6. polyphenols, Down: 1. carbohydrates, 2. fat, 4. eicosanoids, 8. vitamin D.