



## The biggest metabolism mistake you might be making—night after night

*Plus my 5-step plan for repairing the damage...right down to the DNA level*

How often do you get a good night’s sleep? Do you feel rested? When you wake up, are you ready to jump out of bed and start the day? Or do you just want to pull the covers over your head and hit the snooze button?

Considering the CDC has actually identified sleeplessness as an epidemic, I’m thinking you probably feel tired more often than you feel well-rested. And that can have a big impact on your metabolism, according to some great new research.

Simply put, if you feel sluggish and unrested, I would bet your metabolism does as well.

In fact, one new study shows that just *one night* of sleep loss can actually alter your body at the DNA level. And that can lead to the metabolic issues we try so hard to combat—including inflammation and insulin resistance.

Which, as you know, are big contributors to obesity, diabetes, cardiovascular disease, and other serious health issues.

And a new analysis of data from 18 studies, involving 75,657 participants, showed that people who sleep less than an average of seven hours a night have a substantially increased likelihood of metabolic syndrome.

A 16 percent increase, in fact. And if you sleep less than six hours a night that number goes up to 28 percent. Get less than five hours of shuteye a night? Your risk of metabolic syndrome is a whopping 51 percent higher than people who sleep longer.<sup>1</sup>

Finally, other new research shows that *when* we sleep is just as important for our metabolism as *how much* we sleep.

The bottom line is, you can significantly reduce your risk of metabolic syndrome and chronic disease simply by sleeping the right amount every night, on a regular schedule.

Of course, if you have insomnia, this can seem like an insurmountable task. And most doctors don’t spend much time teaching people how to sleep better. Instead, they’ll hand you a prescription for Ambien, Lunesta, or some other

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sleeping pill. But, as you might guess, these drugs are only a temporary Band-Aid. (Not to mention the litany of dangerous side effects that have been linked to them.)

So let me tell you a little bit more about the science behind sleep and metabolic issues—and why it's so important. And then I'll give you some recommendations that will hopefully set you on the right path to healthy slumber.

### **The scary fact: Lack of sleep may alter your DNA**

In a new study involving young, healthy men with normal sleep habits, researchers found that acute sleep deprivation actually affected them at a genetic level.<sup>2</sup>

The men spent a day in a lab, eating breakfast, lunch, and dinner followed by 8.5 hours sleep. Then, the next night, they didn't get any sleep. The whole experiment was repeated four weeks later.

After each night, the researchers took tissue samples from the men's fat and muscles. They discovered that the night with no sleep influenced the men's DNA, raising both their blood sugar and cortisol levels.

That's right. Just one lost night of sleep can actually affect you on an epigenetic, or DNA, level.

Epigenetic changes like this can become a sort of metabolic memory, like muscle memory. And eventually, over time, they can get stuck. I know this may sound very sci-fi, but basically what it means is that one night of lost sleep can actually affect your DNA and metabolism for much longer than a single night.

So just imagine what's happening to your metabolism if you suffer from chronic insomnia. But even if you're one of the fortunate people who gets seven or eight hours of rest a night, you may still have metabolism problems that can be traced back to your sleeping habits.

### **When you sleep is just as important as how much you sleep**

Studies show that if you eat or sleep at times that aren't in normal alignment with your circadian rhythm (your internal 24-hour clock), it negatively affects the regulation of blood sugar—and especially glucose tolerance.

For instance, I've written before in my *Reality Health Check* e-letter about how people who work night shifts are more prone to type 2 diabetes and obesity. Even if they eat a healthy diet and get plenty of sleep. Which indicates circadian rhythm may be a critical, yet overlooked, factor in glucose tolerance.

One new study shows in detail how this works. Researchers mimicked shift work in 14 healthy people. The participants spent eight days eating breakfast at 8 a.m., dinner at 8 p.m., and then sleeping during the night. Then, they reversed their schedules, eating breakfast at 8 p.m., dinner at 8 a.m., and sleeping during the day.<sup>3</sup>

The researchers measured the participants' blood sugar levels every day. And they discovered that when people slept during the day, their daily blood sugar levels were 6 percent higher than when they slept during the night.

In essence, by disrupting their body clocks or

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even just misaligning them, the study participants weren't able to manage their blood sugar as well. Their pancreases stopped functioning by up to 27 percent, and they had decreased insulin sensitivity. All of which are risk factors for diabetes.

So why does this happen?

Well, new research shows it has to do, in part, with one of my favorite topics—gut bacteria.

### **Disrupted sleep sets off disastrous chain of events—starting in your gut**

We know that what you eat can affect your gut bacteria. And now new research shows how you sleep can play havoc with those microbes as well.<sup>4</sup>

Researchers have found that the microbes in your gut are controlled by your circadian rhythm. If you disrupt that rhythm, you're more likely to wind up with an unbalanced gut microbiome. Which has been shown to cause—you guessed it—weight gain, slowed metabolism, and poor blood sugar control.

Researchers analyzed fecal samples from humans during different times of the day. They discovered that the number of microbes and what they did throughout the body varied based on circadian rhythms.

But when those people traveled from Israel to the U.S., disrupting their normal sleep and eating schedules, their gut bacteria changed. And not for the better.

Jet lag encouraged the growth of the type of bacteria associated with obesity and metabolic disease.

### **Why it's important not to get too much of a good thing**

As you've seen, too little sleep or disrupted sleep patterns can seriously damage your metabolism. But there's a third factor you need to take into account as well.

One large study showed that people who get more than eight hours of sleep a night may see a greater expansion in their waistlines over time. And, of course, belly fat is linked to cancer, heart disease, diabetes, and other metabolic disruptions.

Researchers found that among black and

## **The simple trick for staying healthy this cold and flu season**

As you've seen, getting seven to eight hours of shuteye each night can help you maintain a healthy weight and fight diabetes. But a good night's rest can do even more for your health.

Intriguing new research shows this simple step may make you more than four times less likely to get a cold.

Researchers sequestered 164 volunteers in a hotel. Each study participant was given a cold virus via nasal drops, and then monitored for a week. The researchers discovered that the people who slept fewer than six hours per night were 4.2 times more likely to come down with a cold compared to people who slept seven or more hours a night.<sup>5</sup>

In fact, lack of sleep was the biggest risk factor for coming down with a cold in this study. More than age, stress levels, alcohol intake, smoking status, race, education, or income.

Another study on mice found that disrupting the circadian rhythm also increased the risk of colds, flu, and other illnesses—even when the animals were still technically getting the right amount of sleep.<sup>6</sup>

To ensure you get the best sleep, check out my 5-Step Sleep Plan on page 4.

These simple steps will help keep you healthy this winter.

Hispanic adults younger than 40, those who typically slept for five hours or less each night had 20 percent more belly fat after five years compared to people who averaged six or seven hours' sleep a night.

On the other hand, those who slept eight hours or more each night also had bigger bellies than people who slept six or seven hours.

This study offers some pretty convincing evidence that sleeping too much is almost as harmful to your health as sleeping too little.

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## How much sleep do you really need?

So now we have clear proof that when and how much you sleep can change your genetics, increase your blood sugar, and alter your gut bacteria. Which makes you more susceptible to weight gain and more prone to diabetes and metabolic disorders. As well as heart disease and stroke.

But how much sleep do you really need?

For optimum health, it appears that seven to eight hours of shuteye a night is ideal. And here's how I recommend you get it.

### MY 5-STEP SLEEP PLAN

- 1. Eat on a schedule.** As I mentioned earlier, research suggests you can keep your body's internal clock on track with well-timed meals. Eating three square meals at regular intervals will also keep your insulin levels steady throughout the day. And that translates into less insomnia and more restful sleep.
- 2. Feed your flora.** Now that you know your gut bacteria plays a critical role in how well you sleep (and vice versa), your next task is to maintain a healthy microbiome. There are two key ways of doing this.
  - Follow a low-inflammatory, high-protein, healthy-fat, Mediterranean-type diet like my New Hamptons Health Miracle
  - Take a good probiotic. I don't think you can get a better one than Dr. Ohirra's. I recommend one capsule twice a day.
- 3. Supplement your way to sound sleep.** This might sound like the Band-Aid fixes I warned you about above. But the difference between supplements and Big Pharma's billion-dollar sleeping pills is that, instead of just knocking you out, supplements help promote your body's natural sleep process.

My top 3 sleep supplements include:

- ✓ **Melatonin.** This hormone helps control your sleep and wake cycles. Take 1 mg around 5 or 6 p.m., and then 3 mg at bedtime. If you need to, you can increase your bedtime dose by 1 mg per day until

you get a full 7-8 hours of sleep. (The maximum amount you should take per day is 20 mg.) If you feel groggy in the mornings, drop your dosage.

- ✓ **5-HTP or tryptophan.** These amino acids are converted to serotonin and melatonin in the brain, which relaxes you and helps you sleep. Take 50 mg around 11 a.m., 50 mg at 5 p.m., and then 100 mg at bedtime. The timing is somewhat important, as you're trying to stay within your body's natural circadian rhythms.
- ✓ **SAM-e.** This natural compound helps regulate your body's neurotransmitters, which leads to good sleep hygiene. I recommend taking 400 mg when you wake up. (It will not make you sleepy, so it's fine to take it in the morning.)

Start out by taking just one of these supplements to see if it helps. If you need extra support, you can combine them until you're consistently getting a good night's rest.

- 4. Blackout your bedroom.** Light disrupts your circadian rhythms, so make sure your bedroom is as dark as possible. There should be no lights from anything—including your cellphone, tablet, or TV cable box. I also recommend installing room-darkening shades.
- 5. Unplug.** This is hard for many people, but it can really help with insomnia. To give your brain a chance to unwind and relax, stay away from the Internet for an hour prior to bedtime. I even avoid tense television shows before bed.

At the end of the day (or night), it's important to remember that the body is amazingly complex, but everything works together.

So when trying to "fix" what you may think is an isolated problem—like metabolic syndrome—you can't forget other factors, like lack of sleep.

Keep that in mind the next time you're tempted to stay up late to finish a novel, or "power through" jet lag, or pull an all-nighter working on some urgent project. Your brain may quickly forget those transgressions, but your body won't.

*Citations are available online, at [www.drpscator.com](http://www.drpscator.com)*

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## **Brand new joint breakthrough!**

# **Cutting-edge research uncovers the hidden culprit behind stubborn, aching joints in 4 out of 5 people**

Every week I see patients who have knee pain, hip twinges, or throbbing ankles. The first thing I do in those cases is assess whether the patient is overweight.

Carrying excess pounds can put incredible strain on your joints. Particularly if you're older and your joints have already suffered decades of everyday wear and tear.

Of course, you already know that. But here's something you probably don't know. While extra weight does put added pressure on your joints, some groundbreaking new research shows there's also another key factor involved in joint pain.

And it's one you can address right now.

It all has to do with managing a substance in your body called leptin. And the good news is that there's a brand new way to do that. And it's backed by scientific research.

That's right. You can actually start to relieve your aching joints—even *before* you reach your target weight. I'll tell you how in just a moment. But first, let's take a closer look at this breakthrough discovery.

### **New research reveals just how dangerous fat cells really are**

I'm always warning you about the hazards of being overweight. And recent research proves just how dangerous it really is. Researchers have discovered that fat cells produce a hormone called leptin. It's nicknamed the "starvation hormone" because its job is to signal your brain to reduce your appetite and boost metabolism. Simply put, leptin is your body's natural way of managing your weight if you occasionally overeat.

So you'd think that loading up on leptin would help shrink your waistline, right?

Unfortunately it's not as simple as that. Normally, when you have too much body fat, you

produce more leptin. And that signals your brain to reduce your food intake and boost your energy expenditure. So you lose fat and your leptin levels return to normal.

But researchers have discovered that people with a high body mass index (BMI) can actually have leptin resistance, meaning their brain doesn't sense all extra leptin. So it doesn't send the signal to shut down appetite. And they just keep eating—producing more fat and more leptin.

In fact, research shows that people with elevated BMIs can actually have sky-high levels of leptin. In a study done shortly after leptin was discovered two decades ago, researchers measured levels of the hormone in 136 normal-weight people and 139 obese people. They discovered that the obese people had, on average, a whopping 4.2 times as much leptin in their blood than the normal-weight people.<sup>1</sup>

And unfortunately, the discoveries about excess leptin have only gotten worse since then.

You see, this hormone doesn't just control your hunger and impact your BMI...

It can also dictate how healthy your *joints* are going to be.

### **How "Leptin Overload" is taking its toll on your joints**

There's a growing body of evidence linking high levels of leptin with some devastating effects. For instance, new reports from journals like *International Orthopaedics*, *Life Sciences*, and *Rheumatology* all confirm that too much leptin can cause:

- **Thin, weak cartilage** that doesn't cushion your joints like it's supposed to<sup>2</sup>
- **Supercharged inflammation** that keeps your body's natural defenses in overdrive<sup>3</sup>
- **More aches, pains, and discomfort** that

## POP QUIZ: Do you have Leptin Overload?

### Three simple questions uncover your risk

How can you tell if Leptin Overload is the source of your joint troubles? Well, it's surprisingly simple to find out. Just answer these three questions:

**1. Have you tried other joint support supplements, like glucosamine, with no results?**

This is a big red flag, because things like glucosamine don't have any effect on leptin. So if that's the underlying source of your troubles, it makes sense that they wouldn't work. Remember, Leptin Overload could be the reason 4 out of 5 people with stubborn, achy joints CAN'T seem to get relief

**2. Do you worry about your "numbers"?**

I'm talking specifically about these four main health markers: blood pressure, cholesterol, blood sugar, and waistline. If you have trouble keeping them in check, it's a huge signal that your leptin levels could be high.

**3. Do you have trouble losing weight?**

Stubborn weight gain is the biggest red flag of all that you could be suffering from Leptin Overload. As I mentioned above, fat cells actually churn out leptin...so the more excess pounds you're carrying around, the more leptin you have in your system. And in your joints.

make it hard to bounce back after a long day on your feet

And research has revealed that 4 out of 5 people with joint pain have excess levels of leptin—or as I call it, "Leptin Overload"—in their joints.

Specifically, studies show that people who carry extra weight have high levels of leptin not only in their blood, but also their synovial fluid.<sup>4</sup> And this is particularly true for women.<sup>5</sup>

Synovial fluid is a gel-like substance in your joints. It works like a lubricant, reducing friction in your joints when you move.

And a growing number of studies show that the higher the leptin levels in your synovial fluid, the more discomfort in your joints.<sup>6,7,8</sup>

So, in essence, being overweight can harm your joints in two different ways. Excess pounds literally put pressure on your hips, knees, and ankles. And they ramp up your body's production of leptin—which sets off the domino-effect that eventually leads to joint troubles.

### The silent symptom of metabolic syndrome

High levels of leptin have also been linked to high levels of insulin as well as insulin resistance.<sup>9</sup> Which, like obesity and inflammation, are associated with metabolic syndrome.

When you consider this fact along with leptin's role in joint problems, it paints a strikingly clear picture.

In fact, research shows that as many as *four out of five* people with joint pain also have metabolic syndrome.<sup>10,11</sup>

In other words, joint discomfort is another symptom of metabolic syndrome. And it's a symptom that almost no one is looking for.

### The simple way you can stop the vicious cycle of excess weight and joint pain

I know I've thrown a lot of biology at you, so let's do a quick recap before I tell you the good news about a brand new breakthrough that can help you solve all of these issues in one fell swoop.

Here's what we've learned so far.

- The more you weigh, the more leptin you're likely to have circulating in your blood and your joints.
- High levels of leptin have been linked to inflammation, insulin resistance, and increased insulin levels.
- All of these factors are associated with metabolic syndrome.
- Metabolic syndrome is strongly linked to

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joint pain.

Quite a vicious circle, isn't it? Of course, you can help address all of these issues by losing weight. But that takes time.

That's why I was so excited to learn about a revolutionary new supplement called OralVisc that can help you rein in excess leptin WHILE you're losing weight.

### **The next generation of joint support**

OralVisc was developed by the same team of scientists who made one of the most important joint health discoveries in history—the first-ever naturally extracted form of hyaluronic acid, a powerful lubricating compound.

That discovery revolutionized the way we think about “cushioning” the joints...and, truly, changed the supplement world forever.

So when I heard they'd uncovered an even *bigger* breakthrough, I met with them personally to get a firsthand look at their work.

They told me that hyaluronic acid is just one member of a family of nutrients called GAGs (*glycosaminoglycans*). And they've been tirelessly analyzing different combinations of GAGs in an attempt to find one that could address Leptin Overload.

But every time they changed the combination, they got wildly different results.

In fact, one little change could render the whole thing worthless. So they tested and retested for 3 YEARS until finally they hit on the perfect GAG combination—in the exact ratio you need—to conquer Leptin Overload.

They named it OralVisc, and this breakthrough combination is the only nutrient complex that's been clinically tested and shown to defeat Leptin Overload.

This is important because, as I mentioned earlier, research shows that increased leptin levels in your body may actually reduce the thickness of cartilage.<sup>12</sup> And that can contribute to joint pain.

But OralVisc can do much more than just decrease friction in joints.

### **Clinical studies show whole-body benefits from OralVisc**

Two animal studies and a lab study show some amazing results. Obese mice ate less, lost weight, and had better insulin sensitivity and lower leptin levels when they were given OralVisc.

Of course, mice can't tell researchers if OralVisc helped reduce their joint pain. And you know I don't put much stock in animal studies anyway. But a human study on OralVisc published earlier this year also showed impressive results.

Researchers gathered 40 men and women who had had knee pain for at least 10 months. The average age of the participants was 61, and they had an average BMI of 35 (a BMI of 18.5 to 25 is considered normal weight).<sup>13</sup>

The researchers divided the participants into two groups. For three months, one group took 80 mg a day of OralVisc, and one group took a placebo.

At the end of the study, the OralVisc group scored significantly better on joint pain tests. The average pain score of the OralVisc group dropped from 40.3 at the beginning of the study to 27.6 at the end. But the placebo group's score stayed almost the same: from 40.5 to 39.6.

The OralVisc group also had reduced inflammatory markers in their blood and synovial fluid. And they had lower levels of bradykinin, a substance in the joints that starts the inflammation process and stimulates pain receptors.

Even more impressive, the leptin levels in synovial fluid dropped 24 percent in the OralVisc group. But they actually increased 3 percent in the placebo group.

And if that weren't enough, the OralVisc group also had 19 percent lower triglyceride levels than the placebo group.

Can you see why I'm so excited about OralVisc? It's a true breakthrough in joint health. It's the only joint supplement that targets leptin. And based on the research, leptin may very well be the hidden culprit behind aching joints in the vast majority of people. So OralVisc could provide the relief you

*(continued on next page...)*

just haven't been able to get from other natural joint formulas.

OralVisc is so new, it's not widely available yet. But when I found out about it, I was too excited to wait. I wanted my patients—and you—to have access to it as soon as possible. So I've worked with the manufacturer to include it as an ingredient in a brand new formula called MetaJoint Advanced. MetaJoint Advanced is the latest addition to my NuLogic Nutritionals line of supplements, and you can learn more about it—or place an order—by visiting [drpescatore.com](http://drpescatore.com) and clicking the "Shop"

link at the top of the page. Or you can call 1-888-884-7768 (and ask for order code GOV1RCAB).

Keep me posted on your results. I can't wait for the success stories to start rolling in!

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To a healthier you,



Fred Pescatore, M.D.

## News Brief

### Two unexpected nutrients your bones need more of

All of the B vitamins are proven brain boosters. In fact, in the December 2014 issue of *Logical Health Alternatives*, I wrote about exciting new research that shows how B12, B6, and folate can reduce brain shrinkage by an astounding 90 percent—which can substantially reduce your risk of Alzheimer's and other types of dementia.

B vitamins have also been proven in a number of studies to help lower blood levels of homocysteine. Elevated levels of homocysteine have been linked to an increased risk of heart attacks and strokes.

But a new study shows two specific B vitamins are also vital for your bones.

Researchers looked at X-rays of more than 2,800 women age 50 and older. And they tested their blood to see how much vitamin B, homocysteine, and various types of bone-related compounds it contained.<sup>1</sup>

They found that the women who had normal bone mineral density (BMD) in their spines had higher folate levels than women who had low BMD or spinal

osteoporosis. The women with osteoporosis also had higher homocysteine levels.

And the women who had low levels of B12 had a significantly higher risk of dangerously low BMD and osteoporosis.

So the solution is simple. Keep your bones healthy by getting plenty of vitamin B. Especially B12 and folate.

You can find B12 in fish, poultry, meat, and eggs. And clams and liver are loaded with it. Spinach and other dark green leafy vegetables are good sources of folate.

Of course, you should also take a high-quality vitamin B supplement. I usually recommend taking a B-100 complex each day. And to round out your bone-support regimen, you should also take 500-600 mg of calcium, 125 mg of magnesium taurate, 500 mg of strontium, 99 mg of potassium citrate, and at least 5,000 IU of vitamin D eachday, as well as 5 mcg of vitamin K2 twice per day.

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