

Are Your Medications Worsening Your Fibromyalgia?

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Tara thank you for joining us today to talk about the topic: are your medications possibly worsening your fibromyalgia.

Before we delve in, can you please share with us, what is your background?

Certainly and thanks for having me. My first degree is as a Pharmacist and I also hold a Masters Degree with the College of Medicine with a special focus on metabolic and nutritional medicine. I also have an Advanced Fellowship in Regenerative Functional Medicine.

To summarize what this entails, I like to call it ‘treating the person, not just the disease’ and also ‘treating the underlying causes - the root causes - not just masking symptoms’.

So at my practice Vitality Integrative Medicine, based here in Winnipeg, we focus on this personalized and comprehensive approach.

We’ve heard the term integrative medicine before. How would you define it?

This is great to clarify, as this term is often misused when people like how it sounds but don’t necessarily understand it is a specific discipline that is evidence-based and embraces the principles of personalized medicine.

As such, it uses the healthcare professional’s understanding of each patient’s unique biochemical individuality, personal health goals, and understanding of how conventional and complementary therapies can be used safely and effectively for the best therapeutic outcomes. Thankfully more and more regulated healthcare professionals are learning to embrace these strategies.

To summarize, Integrative Medicine ultimately means combining and the scientific understanding of both conventional (e.g. prescription) and complementary therapies (e.g. nutrition, stress reduction and lifestyle). It is not in one camp or the other, but the best of both.

And Tara, can you tell us what led you to this area?

When I started off as a pharmacist I really enjoyed getting the chance to spend time counselling and managing medications with my patients, and often found that there were more details that could really help guide their therapy if only the healthcare practitioner was able to take the time to truly listen and investigate.

Unfortunately though, I would often come across situations where I would see a patient prescribed one medication to help them with an issue, for example pain, that would then contribute to another issue, for example digestive distress, and would end up needing more and more medications long-term to treat issues that perhaps could’ve been prevented.

However, taking the time to unravel this cascade of events is not always feasible with the nature of our current healthcare system. For example, patients might go into an office and see a sign that says you can only discuss one issue per visit.

So if people are feeling frustrated with lack of improvements, or feeling left behind in the current healthcare system, what would you tell them?

First of all, remember you're not alone and don't lose hope.

So this is why I took a leap of faith and founded Vitality Integrative Medicine 7 years ago, and we're now blessed to be recognized as a leading pharmacist-driven clinical practice nationally with patients across the country.

Our goal has been to help patients with a personalized and comprehensive approach, empowering people to understand their health and ensure their voices are heard.

To do so, we start by conducting an in-depth review that usually takes two hours. We then work together in collaboration with other members of their healthcare team and complement the healthcare system. And ongoing, we help patients to navigate through while reaching their goals for optimal health.

Thank you so much for sharing that background. There is obvious importance for medication management in fibromyalgia. So Tara tell us is it possible that our medications are worsening our symptoms of fibromyalgia?

Although each case is certainly individualized, the answer is yes.

The good news of course is that there is something we can do about it.

Although it's not a quick fix, taking the time to understand and be proactive can go a long way to improved health.

And it's critical I reinforce that no one should alter any of their prescription medications without first speaking to the healthcare professional leading their care. And even if there are effects of medications that are undesirable, our goal today is to uncover strategies to both identify and manage that, not necessarily change the medication.

OK, so where do we start?

There are three main mechanisms we will focus on.

1. Drug-Induced Nutrient Depletions
2. Improper Doses
3. Side Effects

To summarize we can think of number one - drug-induced nutrient depletions- as worsening the root causes.

We can think of improper doses as overlooking the root causes.

And we can think of number three - side effects - as overlooking your personalized genetics and your unique metabolism.

Are drug-induced nutrient depletions common?

Well nutrients deficiencies are actually quite common. Some studies suggest that 90% of people are actually deficient in one or more nutrients and surprisingly 50% of those people are already taking supplements.

When we're looking at a condition such as fibromyalgia where there is already evidence that the body isn't functioning at its best and may have increased nutrient demands, any insufficiencies become magnified.

Medications, for all their benefits, unfortunately can deplete nutrients in the process directly or indirectly. It is estimated that on average every medication may deplete at least one nutrient.

Are there certain medications that are known to deplete nutrients?

Yes. Of course, the best way to understand your personalized needs is to have a proper assessment by a qualified healthcare professional who is managing your care.

Today to start, I would like to review some of the common classes of medications for which we should be on the lookout.

First let's start with **antacids**: so these are ulcer medications or those used for reflux or indigestion. Now keep in mind not every single drug of each class will have necessarily all of the specific depletions, but this is what you need a clinician for to help guide you on each of your specific drugs. However, if you are taking any of these acid reducers then we need to be mindful of nutrient deficiencies among six key nutrients. These include vitamin B12 and folic acid which are important for energy, mood and even cardiovascular health and reducing inflammation. Vitamin D is another nutrient that can be depleted here and of course is important for bone health even muscle weakness along with Calcium which may also be depleted by these drugs. Iron is the fifth nutrient here, which again is used for energy, preventing weakness and anaemia. Lastly, we can become lower in Zinc which is used by the body for immune health, wound healing and even sense of smell and taste.

The next category we want to consider is **antibiotics**. It's well-known that antibiotics can disrupt our good flora called probiotics which have been studied to improve mood, not just digestion. Unfortunately, antibiotics may also deplete other nutrients as well including B vitamins and vitamin K. And since a good portion of vitamin K is actually manufactured within the digestive tract, a healthy gut in general is helpful for this vitamin. An interesting fact is that the vitamins can also help support healthy digestive enzymes and digestion, so anything that lowers levels of these can contribute to a bit of a vicious cycle.

Cholesterol lowering medication, including those referred to as statins, can have important cardiovascular benefits but are well-known to deplete coenzyme Q10 (CoQ10). The default is not for a conventional practitioner to recommend CoQ10, but for those experiencing symptoms and wanting to prevent symptoms of depletions, any integrative practitioners knows well the difference it can make. Now, coenzyme Q10 is a powerful antioxidant that is needed for our mitochondria to ultimately make something called ATP, which you can think of as energy in the body. This is something we can use in fibromyalgia that can help patients function better by

decreasing free radicals and supporting mitochondrial function. So insufficiencies in this area may be amplified in patients with fibromyalgia resulting in low-energy, weaker immune system, or even various cardiovascular problems.

A number of **antidepressants** can also deplete coenzyme Q10 and vitamin B2. Interestingly, both of these nutrients are studied for effective use in treating headaches and migraines.

Hormone replacement is another area, particularly in females, where nutrient depletions should be considered. **Estrogen replacement** and **oral contraceptives** are documented to decrease B vitamin status which includes the B complex, as well as magnesium. There may also lower selenium and zinc as well.

Now **anticonvulsant medications** which are sometimes used for mood regulation can deplete a range of nutrients as well including vitamin D, calcium and carnitine which is particularly important for energy and cardiovascular health. Of note, D has been studied to lower seizure risk, so again it comes back to supporting the root causes. They may also deplete B1, B12, folic acid and biotin which can contribute to depression, hair loss or even skin issues when depleted. Others which again are particularly important for the immune system include zinc, selenium and copper as well as vitamin K.

Moving onto **pain medications**, there are two key classes including **steroid** type medications and NSAIDs, non-steroidal type of anti-inflammatory medications. In addition to Vitamin D, the steroids can deplete multiple key minerals including calcium, magnesium and also selenium, zinc and chromium which specifically plays a role in healthy blood sugar cholesterol and even diabetes risk. Steroid medications can deplete several B vitamins as well namely B6, B12 and folic acid. The **NSAIDs** may also deplete folic acid and salicylates in particular can deplete vitamin C, calcium, vitamin B5 and iron as well.

Blood pressure lowering medication can be notorious for depleting nutrients depending on the class. There are some overlapping themes here and zinc is one of the common depletions. In addition, coenzyme Q10, vitamin B1 and vitamin B6 are the next main ones to keep in mind. Of all anti-hypertensives, the diuretics are probably most troublesome in a sense as they may also deplete vitamin C, calcium, magnesium, potassium and sodium which can certainly affect muscle weakness, fatigue and memory problems, all common place in fibromyalgia.

When it comes to **cardiovascular medications** certainly many of these are critical to help people function. Unfortunately certain ones such as the beta blockers for example can also deplete coenzyme Q10, again one of the most helpful nutrients for energy and cardiovascular function at the outset. And since studies show need for CoQ10 increases at age 50, a time when many are on greater medications, the long-term lack of added intake could be cumulative.

Medications that lower **blood sugar** such as sulphonylureas can also deplete coenzyme Q10 and another type called metformin deplete those B vitamins folic acid and B12 in addition.

So what can we expect to experience if we are low in these nutrients?

We know that these nutrients are used for important purpose in the body, as we've outlined at-a-glance above.

For people with a diagnosis of fibromyalgia, they may already have increased demands for nutrients such as magnesium, coenzyme Q10 and B vitamins to name a few.

We know that magnesium and certain B vitamins are important to activate calming brain chemicals and that patient with fibromyalgia often have low levels of tryptophan or serotonin. These lower levels have been studied in fibromyalgia patients and can lead to increased perceived pain. By addressing some of the root causes such as nutrient insufficiencies, we are working to support healthy function upstream.

What is the best tip on nutrient depletions to follow?

Most importantly, we know that one size doesn't fit all. It's for this reason that we don't necessarily recommend that each person automatically takes more of the exact nutrients just because they may be taking one medication that can lower it. But what this does mean is that you need to be aware that medications - especially when used long-term - can exacerbate pre-existing nutrients efficiencies and cause symptoms.

And the best way to know what to do or what to take, if anything, is to consult with a qualified healthcare professional that can give you guidance on what is or isn't relevant based on your clinical picture and unique needs.

So if we are being depleted in nutrients, should we all start taking supplements?

No, as in fact, over supplementation can be as harmful as well. And often the ratios of nutrients matter for example taking too much zinc can and balance copper. Natural health products can also have important interactions with medications that one needs to be cautious about and have reviewed by their pharmacist.

And sometimes depending on each person's needs, food sources can be ample to support adequately. In our practice, for example, we may give a list of top food sources or meal plans to consider to boost key nutrient needs.

So a personalized approach that is carefully guided by a qualified clinician is critical to restoring micro nutrients. Then you can follow the regime that is tailored to be safe and effective for you.

When we are looking to boost nutrients, is it the dose that's most important?

Well when it comes to natural health products we equally need to consider the purity, potency and bio availability which means how much of the drug or nutrient is actually getting absorbed and used in the body where we want it to be used. The stated dose on the label isn't meaningful if it doesn't become available into the body when taken.

Especially since in fibromyalgia there tends to be increased rate of sensitivities - what we sometimes refer to as multiple chemical sensitivities - it's particularly important to choose a professional grade formulation that is studied and can be trusted to be free of unwanted excipients and for efficacy at that therapeutic dose. There can be a great difference in quality and the truth is you do indeed often get what you pay for.

In other cases, like Vitamin C, we know that it is most effective in a form with bioflavonoids and choosing C alone will not yield the same benefits.

Now the second area: How can improper doses worsen our symptoms of fibromyalgia?

Absolutely, and this goes for your medications being managed as a whole.

And for this area I'd like to focus on some type examples of improper dosing of medications not always apparently for fibromyalgia treatment, that can worsen symptoms of fibromyalgia.

First let's talk about **thyroid hormone**. Studies have shown that in adequate sideways supplementation or function can be an underlying cause of the chronic pain or increased tenderness in fibromyalgia.

And when it comes to thyroid, there can be a significant difference between "normal" thyroid levels and "optimal" thyroid levels and function. This is a huge area that we work closely with in fibromyalgia patients to ensure that it has not been overlooked.

Hypothyroidism itself can impair the anti-nociceptive system in the body that is directly leading to pain, tenderness, and hyperalgesia.

Now in addition to watching for symptoms of hypothyroidism - knowing these can have overlap with fibromyalgia such as fatigue, muscle soreness, aches and pains, brain fog, forgetfulness, sleep disturbance, decreased zest and stamina, lower mood and the list goes on - it is also important to make sure you find a clinician that will truly listen to you and your hunch if something feels off and give you confidence you've been heard and that the treatments in place are the best ones.

I will say that I believe any clinician's most valuable tool is first a listening ear. And since my patients know their own bodies best and are in tune to changes, I do well to listen.

Thyroid is one of my areas that can be dosed improperly. Others include **Hormones such as Estrogen/Progesterone in peri-menopause or menopause**, as the balance of hormones when optimal can help to reduce pain, low mood and insomnia. In fact, these hormones can have impact on our brain chemicals involved in calming and in pain transmission, including serotonin and GABA.

Even improper doses of nutrients, such as Vitamin D and Melatonin, can impact symptoms in fibromyalgia if underdosed or overdosed, respectively. Fortunately, both of these can be tested to personalize dosing.

The third area of important you're identifying is side effects, is that right?

Yes, and we're all well aware that medications have a benefit/risk ratio, and that our healthcare professionals choose ones for us for which the benefits outweigh risks or side effects.

Are side effects common in patients with fibromyalgia?

Unfortunately, many patients with fibromyalgia report being more prone to side effects and that can cause distress and discomfort if they are switched between medications over time.

Is there overlap between nutrient insufficiencies and side effects?

It has been estimated that about 30% of side effects to medications are related in some way to drug-induced deficiencies.

You were saying that there are now more innovative tools available to help us predict how we can respond to medications?

Yes, I'm excited that these types of tests are now becoming more accessible. I've worked with forms of pharmacogenomics testing for many years, but we now have access to tools that are much more cost-effective and can help us predict which medications will be best choices for you, and which to avoid.

How do they do that?

They look at the way your genes encode for your metabolism of drugs: fast, slow or normal, and can help predict which ones will be more likely to be ineffective or cause side effects.

Can they tell us that for all medications?

There are a few categories that are most helpful including medications for pain, mental health, cardiovascular health and gastrointestinal function.

Ultimately, they use your DNA to tell us how you are prone to metabolizing an estimated 30%+ of all medications being prescribed.

And can genes tell us about our need for nutrients?

Yes, there are even simple cost-effective tests that we can now use to help identify your genetic predispositions to being low in Vitamin A, Vitamin C, Vitamin D, Calcium, Iron, Omega3, Vitamin B6, Folic Acid, Vitamin B12 and others.

Are these tests invasive?

Fortunately not, as they are conducted by a simple cheek-swab and then popped in the mail to the lab.

How often are these tests repeated?

Since this is a genomics test using your DNA, that information won't change, and a one-time test will give us data that lasts a lifetime.

Thanks Tara. How can we reach out to you if we have follow-up questions?

Thank-you and I wish readers all the best on their road to improved health and vitality!

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