

Removing Toxins to Treat Teen Arthritis

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If a 14-year-old came to you with a swollen ankle or sore knee, what would you do? Would you be out of line to assume it was due to a sports injury or a twisted ankle from a misplaced step? Would you treat it with a little ice, rest; maybe an adjustment or a brace? What if the pain seemed better, but came back a second time and then a third? What would you do when you realized this "injury" was something more?

Arthritis in children is frequently misdiagnosed in the beginning because there is a stigma that it's a disease of the elderly, and the most common signs (inflammation and pain) are assumed to be the result of injuries from sports or other childhood activities. Since arthritis is a degenerative disease, this misdiagnosis and delay in treatment can lead to debilitating results.

At just 14, my patient arrived at the office after months of frustration and pain. It began with swollen ankles then an inflamed right knee. His parents and coaches chalked it up to injuries from basketball and treated it with rest and ice. But the pain persisted. Gradually the swelling got worse; G/I distress soon followed with loose bowel movements 2-3 times a day; then weight loss and extreme fatigue.

Finally, five months later after extensive X-rays and other testing, a blood test for the HLA-B27 gene came back positive, leading to the diagnosis of ankylosing spondylitis and a recurrent bacterial infection. This form of arthritis can be particularly misleading because pain typically originates in the lower back. However, in juveniles, it's common for symptoms to appear in a peripheral joint like the hip, ankle, elbow, knee, heel or shoulder.¹ The pain is caused by enthesitis: inflammation in the area where a ligament/tendon attaches to the bone. It's also common for ankylosing spondylitis to present along with bowel inflammation and inflammation of the eyes. These conflicting symptoms often make AS look like other forms of arthritis or other problems.

Once diagnosed, the patient tried Voltaren, Relafen, prednisone, Valtrex, Flagyl, Cipro and [Zithromax \(Z-Pak\)](#), but the infection persisted and the patient found the arthritic pain to be unbearable. He ultimately quit the basketball team (he was a starter on the junior varsity team).

When facing a long-term diagnosis like [arthritis](#), especially for a young teen, it's essential to think about the effects of using pharmaceuticals long-term. What will those medications do to his body in 40 years? What will his quality of life be like? NSAIDs are still the first-line treatment for ankylosing spondylitis, despite serious side effects, specifically for the GI tract - which this patient was already experiencing problems with.

So, what are your options for treatment? It's interesting to note that while about 7 percent of the U.S. population carries the HLA-B27 gene, only 1 percent develop ankylosing spondylitis. In Northern Scandinavia, by comparison, 24 percent of people carry the HLA-B27 gene, yet only 1.8 percent develop the illness.² Research has shown that one trigger is a chronic bacterial infection.¹ High

concentrations of toxic elements like lead and cadmium have also been shown to affect arthritis.³

Several months ago, this patient had virtually no arthritic symptoms. Was there a way to return his body to his previous state of health? Could we go back to before whatever triggered his arthritis came to light?

The first step was to test. The patient brought in blood testing from his previous doctors; we saw many initial problems - dehydration, liver dysfunction (possibly caused by his medications), anemia, signs of infection and inflammation. The most disturbing sign, however, was that despite months of treatment, he was not stable or getting better - he was getting worse. His erythrocyte sedimentation rate (ESR, an inflammatory blood test) had jumped from 5 to 16 in less than two weeks.

I ordered a tissue mineral analysis and toxic urine challenge (Table 1) using the chelator DMSA to see if there was anything else impeding his body's ability to heal and repair. These tests revealed high levels of almost every [toxic element](#) tested and low mineral levels. His body was severely bogged down by toxins, which had led to the depletion of several essential elements. Knowing this, I had three main goals with this patient:

- *Eliminate toxins* - Low-dose DMSA therapy was performed for three consecutive days every two weeks to eliminate toxic element stores.
- *Rebuild nutrients* - When not using the DMSA, the patient was advised to take calcium, magnesium, a multivitamin/mineral, lithium, iodine and other minerals to replenish his depleted stock. This was especially important during chelation therapy, as toxins attach to nutrients to be expelled from the body.
- *Eliminate inflammation / infection* - High doses of vitamin C, vitamin E, monolaurin (an anti-fungal, anti-viral, anti-bacterial derivate of coconut) and ginger / tumeric were recommended.

INITIAL TISSUE MINERAL ANALYSIS AND URINE CHELATION TESTING

Test	Initial Test	Initial Test Outcome	Healthy Range	Clinical Range
Toxic Elements – Tissue Mineral Analysis				
Aluminum	3.4	Hi	0.00 – 2.20	2.21 – 7.00
Arsenic	0.07	Hi	0.00 – 0.03	0.04 – 0.08
Cadmium	0.18	C. Hi	0.00 – 0.04	0.05 – 0.06
Lead	2.40	C. Hi	0.00 – 0.60	0.61 – 1.00
Titanium	0.52	Hi	0.00 – 0.35	0.36 – 0.60
Uranium	0.04	Hi	0.00 – 0.01	0.02 – 0.06
Essential Elements – Tissue Mineral Analysis				
Calcium	363	Opt	330 – 450	200 – 700
Magnesium	30	Low	35 – 45	18 – 71
Sodium	310	Critical	106 – 154	60 – 200
Zinc	160	Low	170 – 205	145 – 225
Chromium	0.42	Low	0.50 – 0.60	0.40 – 0.70
Iodine	0.34	Low	0.76 – 1.30	0.25 – 1.80
Lithium	0.00	Critical	0.01 – 0.02	0.01 – 0.02
Phosphorus	145	C. Low	173 – 197	150 – 220
Selenium	0.82	Low	0.86 – 1.04	0.70 – 1.20
Strontium	0.44	Low	1.20 – 1.60	0.30 – 3.20
Toxic Elements – Urine DMSA Chelation Test				
Lead	24	C. Hi	0.00 – 1.50	1.51 – 2.00
Mercury	4.4	C. Hi	0.00 – 3.00	3.00 – 4.00

Opt – Current result is optimal.

Hi/Low – Current result is higher / lower than the healthy range, but still within clinical ranges.

C. Hi/C. Low – Clinically high / low.

Critical – Critically high / low, is greatly outside the clinical range

In three months, we retested using the toxic urine chelation challenge and saw great improvements.

Lead dropped to 11 and mercury to 3.3. This shows that his stored levels of toxins were coming down. The ESR dropped from 16 to 7 and most of his CBC (infection) counts returned to normal ranges.

Symptom-wise, the patient no longer had inflammation in his knee, and his parents noted increased energy and no complaints of joint pain or stiffness. He grew 2 inches, gained 10 lbs and was officially off all prescriptions! Despite this progress, his uncle (who is an MD) pushed the family to put the patient back on medications to "better keep him in remission." However, they decided to continue with what was working. The patient's mother told me that the teen was "really concerned about what would happen if he didn't take his supplements." The patient felt better off medications and on supplementation, and stood up for himself and his health.

We had been using tests from the patient's medical doctor to monitor his treatment; however, there were several holes in the blood test. A test including complete metabolic analysis, thyroid panel, hepatic and renal panels, inflammatory markers, 25-hydroxy vitamin D, hemoglobin A1C, creatine kinase, ESR, CRP, lipid panel, CBC and iron/ferritin levels allows you to see a comprehensive analysis of the system.

In Table 2, you can see that his medical doctor never checked the creatine kinase level which is an indicator of muscle breakdown as well as autoimmune myositis ([inflammation](#) of the skeletal muscles, joints or GI track). When we checked, the results were a very high 704. It wouldn't surprise me if the patient's creatine kinase values had been near 2,000 at one point.

Despite this patient's quick progress, it's important to understand that elimination of toxins from the body takes time and work. Over the next two years, we continued to utilize chelation therapy and nutrients to get his body healthier, and retested every six months to a year to be sure no new problems were emerging. The patient still had no arthritic flare-ups and he noted that his colon symptoms were 99 percent better. He continued to play basketball through high school and is thrilled to be a normal kid.



References

1. Spondylitis Association of America: Ankylosing Spondylitis. www.spondylitis.org/about/as.aspx
2. MedicineNet.com: Ankylosing Spondylitis
www.medicinenet.com/ankylosing_spondylitis/article.htm
3. Hassan IA, Tasneem GK, Dermot B, et al. Association between essential trace and toxic elements in scalp hair samples of smokers rheumatoid arthritis subjects. *Sci Tot Environ*, December 2011;412-413:93-100.

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