

# Ankylosing Spondylitis

*AS is a form of arthritis that primarily affects the spine, although other joints can become involved. It causes inflammation of the spinal joints (vertebrae) that can lead to severe, chronic pain and discomfort.*

**Patient Symptoms:** The 14-year old patient presented with swollen ankles, an inflamed right knee, some weight loss, noticeable fatigue and a problem with loose stools (2-3 times per day). At the time of the initial visit, he weighed 118 lbs at 5'4" and his blood pressure was 99/64.

## Patient Profile: 10-14-05

About five months ago, the patient started having gastro/intestinal problems followed by a gradual increase in joint swelling specifically around the knees and ankles. He consulted several experts who did extensive testing for arthritis and bacterial infections along with x-rays. They began prescribing medication to inhibit the swelling and loose stool movements in September, but none helped and the patient was forced to quit playing JV basketball due to the daily pain. The patient had tried Valtrax, Prednisone, Voltaren, Cipro, and Z-Pak, and was still taking Relafen and Flagyl on a daily basis.

Using blood tests done at a local hospital as a base for analysis, results were compared to earlier blood work from June and October. Looking at the chart below, 11 blood values became worse in a little less than 4 months indicating that the problem was getting worse despite or perhaps due to the medications his doctors recommended.

## Results of Initial Blood Test: 10-24-05

Test Description	Date:	Current Result	Current Rating	Prior Result	Delta	Healthy	Clinical
	10/24/2005			06/28/2005			
Glucose		82.00	Opt	80.00	⊕	80.00 - 95.00	65.00 - 99.00
BUN (Blood Urea Nitrogen)		17.00	Opt	16.00		13.10 - 18.00	5.00 - 26.00
Creatinine		0.60	lo	0.80	⊖	0.61 - 0.90	0.50 - 1.50
BUN / Creatinine Ratio		28.30	HI	20.00	⊖	13.10 - 20.00	8.00 - 27.00
Sodium		138.00	lo	145.00	⊖	140.10 - 144.00	135.00 - 148.00
Potassium		4.60	hi	4.50	⊖	3.91 - 4.60	3.50 - 5.50
Chloride		100.00	lo	109.00	⊕	100.10 - 106.00	96.00 - 109.00
Calcium		9.60	lo	10.10	⊖	9.71 - 10.10	8.50 - 10.60
Calcium/Albumin Ratio		2.34	Opt	2.24		2.10 - 2.50	2.03 - 2.71
Total Protein		7.80	hi	7.70	⊖	7.11 - 7.61	6.00 - 8.50
Albumin		4.10	Opt	4.50		4.10 - 4.51	3.50 - 5.50
Globulin		3.70	hi	3.20	⊖	2.81 - 3.51	1.50 - 4.50
A/G Ratio		1.10	LO	1.40	⊖	1.22 - 1.60	1.10 - 2.50
Total Bilirubin		0.40	Opt	0.40		0.39 - 0.93	0.10 - 1.20
Alkaline Phosphatase 70-480		260.00	Opt	318.00		210.00 - 350.00	70.00 - 480.00
SGOT (AST) (AST)		14.00	lo	22.00	⊖	18.10 - 26.00	6.00 - 40.00
SGPT (ALT) (ALT)		34.00	hi	28.00	⊖	18.10 - 26.10	6.00 - 40.00
Polys/Neutrophils (SEGS-PMNS)		53.10	lo	51.80	⊕	55.10 - 65.00	40.00 - 74.00
Lymphocytes		34.20	Opt	31.90		25.10 - 40.00	14.00 - 46.00
Monocytes		9.00	hi	7.50	⊖	5.10 - 7.10	4.90 - 13.00
Eosinophils		2.80	Opt	3.80		0.00 - 4.10	0.00 - 7.00
Basophils		0.90	hi	5.00	⊕	0.00 - 0.00	0.00 - 3.00
ESR-Erythrocyte Sed Rate, Westerg		5.00	Opt			0.00 - 8.00	0.00 - 30.00

Blue = clinically very high or clinically very low

Red = clinically high or clinically low

Yellow = a little high or a little low; this can be considered a warning sign that the value is not optimal.

In addition, several deficiencies/imbances showed in the patient's hair test results suggesting a difficulty for the body to heal and repair. High amounts of several toxic elements were also present, most notably Arsenic and Lead. High levels of toxic elements can be further seen in the results of the UA mineral test showing the patient's inability to efficiently eliminate heavy toxic metals like Lead and Mercury. A saliva test, urinalysis and metabolic urinalysis was also conducted showing a slight infection, mild toxicity associated with the liver, gastrointestinal involvement, a low pH, and vitamin C and calcium deficiency. A blood test for the HLA-B27 gene also came back positive leading to the diagnosis of Ankylosing Spondylitis. The patient was placed on alternating cycles of the chelating agent DMSA along with a series of minerals and supplements which showed as deficient in the patient's test results. As the toxic element burden is eliminated from the body, the patient should notice a reduction in swelling and joint pain and a boost in energy.

**12-29-05** Two months later a third blood test was performed. Many values improved including the ESR rate, which is an indicator of inflammation. Monocytes, which partially account for the patient's Gastro/Intestinal Dysfunction and Basophils neared their optimal healthy ranges.

**Results of 3rd Blood Test:**

Test Description	Date:	Current Result	Current Rating	Prior Result	Delta	Healthy	Clinical
	12/29/2005			11/04/2005			
SGOT (AST) (AST)		52.00	hi	28.00	⊖	15.00 - 26.00	6.00 - 40.00
SGPT (ALT) (ALT)		45.00	hi			15.00 - 26.00	6.00 - 55.00
White Blood Count		5.60	Opt	5.10		5.00 - 8.00	4.00 - 10.50
Red Blood Count		5.06	Opt	4.77		4.50 - 5.50	4.10 - 5.60
Hemoglobin		14.60	Opt	13.40		13.30 - 15.20	11.50 - 17.00
Hematocrit		43.30	Opt	39.40	⊕	39.50 - 47.00	34.00 - 50.00
MCV		85.50	Opt	82.50	⊕	85.00 - 97.00	80.00 - 98.00
MCH		28.90	Opt	28.20		28.10 - 32.00	27.00 - 34.00
MCHC		33.80	Opt	34.10	⊕	33.00 - 34.00	32.00 - 36.00
RDW		13.70	Opt	14.00		13.50 - 14.50	13.00 - 15.00
Platelets		242.00	Opt	325.00	⊕	175.00 - 250.00	140.00 - 415.00
Polys/Neutrophils (SEGS-PMNS)		58.00	Opt			55.00 - 65.00	40.00 - 74.00
Lymphocytes		27.00	Opt	27.30		25.00 - 40.00	14.00 - 46.00
Monocytes		8.00	hi	8.30	⊕	5.00 - 7.00	4.00 - 13.00
Eosinophils		7.00	hi	3.70	⊖	0.00 - 4.10	0.00 - 7.00
Basophils		0.00	Opt	1.00	⊕	0.00 - 0.00	0.00 - 3.00
Neutrophils/Polys (Absolute)		3.25	lo			3.80 - 5.80	1.80 - 7.80
Lymphs (Absolute)		1.51	lo			2.00 - 3.20	0.70 - 4.50
Eosinophils (Absolute)		0.39	hi			0.00 - 0.20	0.00 - 0.40
Basophils (Absolute)		0.00	lo			0.00 - 0.10	0.00 - 0.20
ESR-Erythrocyte Sed Rate, Westerg		7.00	hi	16.00	⊕	0.00 - 6.00	0.00 - 15.00

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**01-23-06** – The patient is now off all medications and doing well. He has grown 2 inches since November which surprised his rheumatologist, who is still urging the patient to take medication. There has been a reduction in swelling around the ankles and the patient continues to see improvements with joint pain and stiffness.

## **Final Results:**

Ankylosing Spondylitis is often misdiagnosed in young teens because the symptoms are very similar to athletic injuries and because each individual tends to present with their own unique pattern and activity of the illness. This patient's ability to eliminate toxic metals from his body is very low. On the first UA mineral test, there was no lead being eliminated from his system. Those toxins actually bind processes in the body, slowing its ability to heal. Exposure to these kinds of toxins may be one of the triggers that sparked the Ankylosing Spondylitis. Medical treatment for this condition traditionally starts with a series of non-steroidal anti-inflammatory drugs (NSAIDs) followed by medications like sulfasalazine which suppress the body's immune system. Newer treatments considered to be "more effective" include drugs that actually attack a messenger protein of inflammation but patients are required to take these drugs for life or face relapse. Instead of treating just the inflammation, the focus was placed on the whole system, filling the nutritional gaps with essential elements and minerals and working to eliminate toxins from the patient's body. Now he has virtually no pain and can do all the athletic things he enjoys.

