Oxalates

The Missing Factor In Healing???
Oxalates

What are they?

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An Oxalate is a very simple sort of molecule. It links up with minerals (Ca, Mg, Zn) and crystallizes under some conditions and is synthesized by the incomplete oxidation of carbohydrates. The crystals formed this way can be quite irritating and painful to tissues as they cause or increase inflammation.


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Bad Things Oxalates Do

- Induces oxidative stress
- Increase oxidized glutathione
- Interferes with sulfur chemistry
- Impair growth
- Blocks methylation pathway
- Binds to damaged tissue prolonging injury
- Binds minerals needed as co-factors


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Symptoms of High oxalates

• Pain: urinary pain, joint pain, achiness
• Inflammation
• Ongoing dysbiosis
• Sandy Stools
• Low minerals Status

• Essentially any inflammatory condition that doesn’t respond to the usual treatments

http://www.lowoxalate.info/
http://www.greatplainslaboratory.com/home/eng/oxalates.asp

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Oxalates Are The Missing Links In

- Chronic Pain
- Chronic Inflammation
- Fibromyalgia
- Autism
- Vulvar Pain
- Kidney Stones
- Crystals in the:
  - Heart
  - Bone
  - Brain

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Suspect High Oxalates

• All Inflammatory Conditions
  • Mold
    – Positive mold tests in urine
  • Yeast Overgrowth
    – High Arabinose
    – Positive Stool tests
  • Parasites
    – Positive stool test
    – High eosinophils (EOS) on CBC
    – History of exposure
• Lyme Disease
  – Lyme Co-Infections

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Testing for High Oxalates

• OAT test (organic acid test)

<table>
<thead>
<tr>
<th>Oxalate Metabolites</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glyceric</td>
<td>0.21</td>
<td>4.9</td>
<td>1.7</td>
</tr>
<tr>
<td>Glycolic</td>
<td>18</td>
<td>81</td>
<td>49</td>
</tr>
<tr>
<td>Oxalic</td>
<td>8.9</td>
<td>67</td>
<td>93</td>
</tr>
</tbody>
</table>

• Oxalate/Creatinine ratio (random urine sample)

<table>
<thead>
<tr>
<th>TESTS</th>
<th>RESULT</th>
<th>FLAG</th>
<th>UNITS</th>
<th>REFERENCE INTERVAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxalates, Urine</td>
<td>9</td>
<td></td>
<td>mg/L</td>
<td>Undefined</td>
</tr>
<tr>
<td>Creatinine, Urine</td>
<td>21.9</td>
<td></td>
<td>mg/dL</td>
<td>16.0 - 327.0</td>
</tr>
<tr>
<td>Oxalate/Creat. Ratio</td>
<td>41.1</td>
<td></td>
<td>mg/g creat</td>
<td>9.2 - 45.4</td>
</tr>
</tbody>
</table>

• 24 hour urine for oxalates
Reduce Oxalate Intake

• Needs to be done slowly to prevent oxalate dumping
  • The higher their diet is in oxalate now, the SLOWER they need to reduce oxalate intake.
  • Under 500 mg per day, go down 10% per week, so that in the 10th week they are low oxalate (about 50 mg).
  • Over 500 mg of oxalate intake per day, they will have to reduce 5% per week - or less.

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Oxalate Dumping...

- Occurs when you drop your oxalate intake too quickly

- Dumping releases oxalates out of the crystals and binds to Ca and Mg

- Those who choose to go “Cold-Turkey” will have a short “honeymoon” period of feeling good but....

- Symptoms of Oxalate Dumping include:
  - Muscle aches
  - Muscle cramps,
  - Headaches
  - Numerous others

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Treatment of High Oxalates

• Drink lots of water
• Replete B6
  – Check Zn level
    • If High use P5P
    • If low use B6
• Check B1 & B5; replete if necessary
• High concentration of lactic bacteria probiotics ¹

• Use Multi-mineral citrate compound to bind oxalates and release the needed minerals (Zn, Mg, K, etc.)

¹ Kidney Int. 2001 Sep;60(3):1097-105.
Reduction of oxaluria after an oral course of lactic acid bacteria at high concentration. Campieri C¹, Campieri M, Bertuzzi V, Swennen E, Matteuzzi D, Stefoni S, Pirovano F, Centi C, Ulisse S, Famularo G, De Simone G.

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Let’s Not Forget…

• Heal leaky gut
  – Need phospholipids for cell wall integrity
  – Non-oxalate substances to heal cell wall (bovine immunoglobulin/protein isolate or colostrum)
  – Probiotics (high lactic acid)

• Support GB function
  • Digestive Enzymes

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Always…Treat Root cause(s)

- Lyme
- Co-Infections
  - Babesia
  - Bartonella
  - anaplasma
- Yeast
- Mold
- Parasites
Consults
Skype or Phone consults are available Worldwide.

E-mail: bioindividuamed@gmail.com
Phone: 610 449 9716
Fill in contact form at: www.methylationsupport.com

Dr. Armine offers a complimentary 15 min “get acquainted” session to ascertain if he can help your condition.

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Practitioner Support

If you are a Health Care Practitioner and need support in understanding the complexities of Bio-Individualized Medicine and Methylation issues, Shawn and Dr. Jess will consult with you on a one time or ongoing basis. We also offer personalized mentorship opportunities. Go To http://www.methylationsupport.com/methylation-practitioner-support/ for more information.

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Phone: 610 449 9716
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Fill in contact form at: www.methylationsupport.com

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Certification In Bio-Individualized Medicine

• We hear it daily….
  – I go to a practitioner who says he know methylation but really doesn’t
  – My doctor only knows part of my problem
  – I am not getting better!
  – ”Who can put all this complex stuff together?”

• We have heard you! And we have responded!

• Our New Website will be up soon and on it….drumroll, please….will be a list of “recommended health care practitioners”

These practitioners have attended training (Dr. Ben’s Methylation course(s), the recent MABIM conference or other adequate education) AND have demonstrated to Shawn and I understanding of the principals involved and competence in practicing these principles.

• “Certification” will be a complex process so we are starting with a list of practitioners with whom we are confident are trained and competent.*

• The list is short but it’s a start as we firm up the certification process.

• Please ask your providers to contact us with questions about inclusion to this very exclusive list.

* Dr. Jess Armine, Shawn Bean, and the Center for Bio-Individualized Medicine are not responsible for the actions, non-actions or results of treatment with any practitioner on our list.