

Iodine, Microbiome and Chronic Fatigue Syndrome

[lassesen](#) 12:00 am on April 15, 2014 January 22, 2016

Many of us more ancient folks remember when if we got a cut, we dreaded the treatment worst then the cut. [Iodine tincture](#) was applied to the cut to kill bacteria. It is a very very effective antimicrobial. It's use has stopped in our society. A reader, who like me, from a location where his ancestors likely had a very high iodine intake due to fish being a staple of the diet, asked about iodine as a supplement. Excellent question because the level of it would likely impact *inherited microbiome* significantly.

What is *inherited microbiome*? It is two parts: bacteria obtained from babies putting their fingers into their parent's mouth, as well as inherited DNA *cooperation* with certain species-strains. Conceptually it is easy to understand, but it's impact on treatment protocols is a lot of complexity.

So what do we know:

- Nothing on CFS and Iodine on pubmed. We do know that iodine is essential for thyroid, "Iodine's main role in animal biology is as a constituent of the [thyroid hormones thyroxine](#) (T4) and [triiodothyronine](#) (T3). " [\[Wiki\]](#), and there is a lot on [thyroid and CFS](#). *Why have there been no published studies on iodine supplementation for CFS?*
- Looking for Iodine and Bacteria results in thousands of hits where iodine was used for staining bacteria... ugh.

Looking at various [sites](#), there is a feeling of dejavu with Vitamin D3. The official healthy level for [Vitamin D3](#) was defined to be that which stopped rickets from happening. (about 200 IU/day) and only recently has a level of 5000 -1000 IU/day has been found to be needed to reduce cancer and

MS risk as well as decrease in symptoms for CFS and FM. Iodine is not tested for usually. There are [procedures](#) for dealing with iodine poisoning.

There is a privately published study [Effect of Daily Ingestion of 100 mg Iodine Combined with High Doses of Vitamins B₂ and B₃ \(ATP Cofactors\) in Five Subjects with Fibromyalgia](#) that is worth the read. Note that the dosage was 100 mg/day and Vitamin D is strongly recommended with it.

A [\[2008\]](#) study found *"In conclusion, median urinary iodine 100~200 mug/l may reflect the safe range of iodine intake levels. Serum thyrotropin/thyroglobulin ratio might be a better index of evaluating iodine status."* A [\[2006, full text\]](#) study found *"Mild and moderate iodine deficiency was associated with a decrease in serum TSH with age."*, the full text went on to state *"Until recently, the iodine intake of many European populations including the Danish (1) was below the level recommended by the international organizations (2)".* For CFS patients there is a tendency to eat too-healthy for their own good. This includes avoiding salt (especially iodine salt) or use special salts not containing equivalent iodine levels (Himalayan salts, etc).

Further more, *"Even if there is consensus on the importance of avoiding iodine deficiency, there are **many unanswered questions concerning optimal iodine fortification of food, and optimal iodine nutrition of a population (6).**"* One of my favorite CFS MD's, [Dr. Myhill](#) writes *"Interest in iodine was re-awoken in 1993, when Gent demonstrated that 5mg a day of iodine is highly effective in the treatment of fibrocystic disease of the breast. A study in Japan showed that the average daily intake of iodine was 13.8mg (because of their high intake of seafood) and the Japanese have the lowest incidence of breast cancer in developed nations."*

Hmmm Iodine and Cancer... sounds like Vitamin D and cancer is echoing! She goes on to describe a protocol using about 50mg/day which resulted in less brain fog and major increase in the level of toxins being excreted by CFS patients.

Bottom Line

There is more that we do not know then what we do know



. There is the appearance that individual generics may play a significant role in determining the appropriate level. The inferred safe range of supplementation seems to be 14mg – 50mg of iodine/day. This is well above the [official RDA \(Minimal\)](#) levels, to quote MyHill "*Furthermore, the recommended daily amount of iodine is 150 µg – that is to say a thousand fold less than the sort of doses that were used in the 19th century.*" The typical iodine supplement is ~5 – 12 mg/tablet and Kelp around 150mcg

(0.15mg) each. Myhill recommends: [Iodoral](#).

As always, consult your knowledgeable medical professional before changing or adding supplements (if you can find said).