



MARCoNS – An Overview

MARCoNS (*Multiple Antibiotic Resistant Coagulase Negative Staphylococci*) is an antibiotic resistant staph that resides deep in the nasal passage of 80% of people with low MSH (*Melanocyte-Stimulating Hormone*), those suffering from Biotoxin Illness and other chronic inflammatory illnesses CIRS (*Chronic Inflammatory Response Syndrome*) and CFIDS (*Chronic Fatigue and Immune Dysfunction Syndrome*). This percentage increases when the person has also been treated with antibiotics for a month or more. Once they have taken up residence, MARCoNS will further lower MSH (*MARCoNS make hemolysin that cleave MSH rendering it inactive*), increases cytokines, and lower T-reg cells resulting in Chronic Fatigue symptoms of body aches and debilitating exhaustion. MARCoNS is not an infection but a commensal colonization that can become an infection. These bacteria send chemicals into the blood (*exotoxins A and B*) that increase inflammation and by cleaving MSH causes a further decrease of MSH levels, which in turn creates more inflammation. MARCoNS live in the deep nasal passages and is common in all biotoxin illness.

MARCoNS is not commonly found in the deep sinuses of normal individuals with intact immune systems. MARCoNS is found in many patients with mold exposure, chronic Lyme disease and biotoxin illnesses.

As MSH is further lowered by MARCoNS, fatigue and chronic pain due to reduced endorphins and increased cytokines will ensue. In addition, hormone imbalances, mood swings, leaky gut, alternating constipation and diarrhea, lower melatonin (*poor sleep*), and low ADH (*Antidiuretic Hormone*) are all the result of low MSH. When MSH falls too low, the body initially raises ACTH (*Adrenocorticotrophic Hormone*) and Cortisol in response to the increased stress thereby keeping the person functional.

However, over time, the body loses the ability to compensate resulting in ACTH and Cortisol values that fall below normal levels and adrenal fatigue sets in. Related to ADH, an imbalance between lowered ADH and Plasma Osmolality (*a measure of body hydration*) results in the person being unable to hold water (frequent urination), and may lead to frequent static shocks due to the higher-than-normal salt levels on the skin, along with lower back pain, fungal overgrowth, depression, allergies, obesity, and other symptoms associated with chronic dehydration. The Inflammatory markers C4A and TGF-beta 1 are typically quite high in people with biotoxin illness, also called CIRS.

MSH protects the mucous membranes in the nose from colonization of MARCoNS. Fungal exposure, chronic Lyme disease, and biotoxin illnesses deplete MSH, therefore leading to colonization of these bacteria. Staph Coagulase Negative becomes multiple antibiotic resistant due to the formation of a biofilm which protects the bacteria from the penetration of the antibiotics.

In summary, reduced MSH is a co-factor which can lead to MARCoNS becoming a nasal staph infection. MARCoNS activates inflammation and produces biofilm and biotoxins. HLA-DR genetic testing should be performed to see if there is an immune defect in excreting the Lyme, bacterial or mold toxins.

Reference: www.survivingmold.com

MARCoNS & Mold Culture with Identification:

Many patients suffering from unexplained symptoms from illnesses that cause them to lose their quality of life have found relief from the treatment of researcher Ritchie Shoemaker, M.D. Dr. Shoemaker has found that these symptoms are often caused by "*Mold Illness*", which may be a result of exposure to airborne mold present in the environment of water damaged buildings.

Mold illness is not an allergy. It is believed to be an inflammation within the body caused by the immune system's response to these foreign substances. However, it is a vicious cycle causing the immune system to constantly fight back. In turn, this causes increased inflammation in the body that leads to chronic illnesses, which insidiously takes away energy, cognition, easy breathing and leaves behind ailments of pain, fatigue, depression, and often, weight gain.

Testing for MARCoNS

Microbiology DX performs Nares Cultures for gram positive bacteria such as MARCoNS as well as other gram-positive bacteria and gram-negative bacteria. This includes identification and antibiotic susceptibility testing when warranted. The same swab can be cultured for fungi including mold and yeast with identification.

- **Nares Bacterial Culture (*includes MARCoNS & other pathogens*):**
Identifies organisms and provide susceptibility profiles for treatment regimens.
- **Nares Fungal Culture:**
Identifies fungus including mold and yeast from the same swab submitted for bacterial culture. We also include an interpretation and recommendations.