NUTRITION AND HAIR LOSS IN THE BARIATRIC PATIENT

Nutrition can have a great impact on hair health because when forced to make a choice, the body will shift nutritional stores to vital organs like the brain and heart and away from hair. For most of your life you are in the process of both growing and losing hair. Human hair follicles have two states: anagen (a growth phase) and telogen (a dormant or resting stage). All hairs begin their life in the anagen phase, grow for some period of time, and then shift into the telogen phase (which lasts approximately 100-120 days). Following this shift, the hair will fall out. Typically about 90% of hairs are anagen and 10% are telogen at any given time. This means that we are usually losing a lot less hair than we are growing.

Specific types of **stress** can result in a shift of a much greater percentage of hairs into the telogen phase leading to increased hair loss. These stresses include:

- High fever
- Severe infection
- Major surgery
- Acute physical trauma
- Chronic debilitating issues (such as cancer or end-stage liver disease)
- Hormonal disruption (such as pregnancy, childbirth, or discontinuation of estrogen therapy)
- Acute weight loss
- Crash dieting
- Anorexia
- Low protein intake
- Iron or zinc deficiency
- Heavy metal toxicity
- Some medications (such as beta-blockers, anticoagulants, reinoids, and immunizations)

Iron

Iron is the nutrient most highly correlated with hair loss. Optimal levels for hair hair health have not been established, but there is some good evidence that a ferritin level below 40mg/L is highly associated with hair loss in women (40mg/L is well above the level that is considered anemic, so healthcare providers would not be expected to view this as a deficiency)

Zinc

Zinc deficiency has been associated with hair loss in both animal studies and human cases. Zinc deficiency is a well-recognized problem after biliopancreatic diversion/duodenal switch, and there is some indication that it may occur with other procedures such as gastric bypass and adjustable gastric banding. The tolerable upper intake level (UL) for zinc is set at 40mg in adults as higher doses can cause gastrointestinal distress and chronic toxicity (most likely associated with copper depletion). Be advised that high-dose zinc therapy is unproven and should only be done under healthcare provider supervision due to the associated risks of toxicity.

Protein

Low protein intake is associated with hair loss. Limited studies suggest that patients with the most rapid or greatest amounts of weight loss are at the greatest risk. Adjustable gastric banding does not alter the anatomy, but other procedures that involve surgical reduction of the stomach cause significantly reduced (or eliminated) hydrochloric acid, pepsinogen, and normal churning. Furthermore, pancreatic enzymes that would also aid in protein digestion are redirected to a lower part of the small intestine.

Research also indicates that low levels of l-lysine can contribute to hair loss and that repletion of lysine stores may improve both iron status and hair regrowth

Other

Other nutrients associated with hair health include Vitamin A, inositol, folate, B6, and essential fatty acids. Hair loss can also be caused by systemic diseases including thyroid disease and polycystic ovarian syndrome (PCOS), and is influenced by genetics.

The nurse practitioners of Lapband Solutions recommend oral intake of a DAILY MULTIVITAMIN