

## BLOOD WORK

### WHAT TO REQUEST & WHY

Whether you are checking into Skyterra in the next 30 days or departing Skyterra to head home, requesting the following blood work will give you markers that can provide current awareness as well as revealing continued progress based upon positive behavior changes. Ideally, blood work should be collected at least once a year as well as every 3-6 months to evaluate behavior change. We strongly recommend having a conversation with your primary doctor prior to your next blood collection to discuss and request certain markers mentioned below.

- **Vitamin D** – Over 50% of the American population is deficient in this vitamin. Interestingly, Vitamin D plays more of a hormonal role in our body and is critical in regards to our immune system, calcium absorption and more. Optimal levels are between 50 and 60 ng/mL.
- **Fasting Blood Glucose & HbA1c** – Your HbA1c measures your average blood sugar, in a percentage, over the past 3 months. Checking in with your fasting blood glucose is extremely valuable; however, HbA1c will give you the big picture in regards to blood sugar regulation. Optimal levels for HbA1c are between 4 and 5.5%.
- **ApoB** – Apolipoprotein B is the negative protein found in LDL cholesterol that increases the risk for particles to bind and clog blood vessels. Knowing where you stand with this will provide you with valuable information in regards to cardiovascular risk outside of traditional markers.
- **Triglycerides** – This is a fat that circulates the blood on a regular basis and is a traditional marker for heart disease risk. The liver assists in producing triglycerides and is greatly influenced on increased intake of added sugar, refined carbohydrates and excessive alcohol. Current normal levels are lower than 150 mg/dL.
- **hs-CRP** – high sensitivity C-reactive protein is an inflammatory marker in the blood. High levels of inflammation have been linked to an onset of diseases including heart disease, autoimmune disease, cancer, type II diabetes and more. The lowest risk range is less than 1.0 mg/dL in the blood.
- **Thyroid Panel (TSH, free T3 & reverse T3)** – TSH is the overall marker of thyroid stimulation which directly impacts metabolism, energy regulation, weight control and body temperature. However, the TSH marker it doesn't provide the full picture. Free T3 is the more active form of your thyroid. We find it extremely valuable to know where you stand on all three measurements (TSH, free T3 & reverse T3). Advanced thyroid panels are available and encouraged to evaluate (e.g., total T4, T3 uptake, free T4 index, etc.)
- **LDL, VLDL, HDL + Lipoprotein(a)** – Lipoprotein(a) has been linked to cardiovascular risk and heart disease. This test is not routinely measured and provides you with more valuable information given it is extremely variable based upon genetics.
- **If overweight, Cortisol, Insulin and IGF-1 (growth hormone)** – Some of these measurements may need to be taken via urine testing, but it would be extremely valuable to discuss these with your primary doctor.
- **DHEA** – Dehydroepiandrosterone sulfate is a precursor to testosterone as well as having certain building and growth functions in the body. DHEA is produced by the adrenal glands and is valuable for both men and women to recognize if levels are too high or too low. Normal levels for women ages 50-59 is 26 to 200 ug/DI and males ages 50-59 between 70 and 310 ug/dL.
- **Nutrients of interest (serum Ferritin, total iron binding capacity (TIBC), Folate, Vitamin B12, RBC Magnesium)**- The body depends on these nutrients and markers of certain nutrients (e.g., iron) to deliver oxygen and nutrients to your body by red blood cells. Additionally, these nutrients of concern/interest play a huge role in overall metabolism and biochemical reactions in the body.

**Other panels worth discussing:** Liver & Kidney (BUN/creatinine, AST/ALT, total bilirubin, albumin, total protein); Omega-3 Fatty Acids; Lipid Particle Size; Hormones (testosterone, free testosterone, estradiol, progesterone, SHBG); Inflammation (fibrinogen, homocysteine); Electrolytes; Calcium; Bicarbonate.