

**HEMOGLOBIN A1C TEST**Patient Name: Kathy WilsonResults: 5.3

Hemoglobin A1c is a measurement of the percentage of your red blood cells that have been damaged by glucose (blood sugar). When our blood sugar level increases so do our risks of blood vessel damage, brain loss, increased fat storage, strokes, autoimmune disease and other factors.

Red blood cells live about 120 days. This measurement gives us a good indication of your average blood sugar over the course of the last three months, and how it may be contributing to the way you feel, body fat, and brain volume loss.

High blood sugar produces high fat. This fat produces pro-inflammatory peptides and enzymes, which produces inflammation, impacts brain tissue loss, and increases the risks of cancer, heart attack, and strokes. Fat also increases the rate of joint degeneration.

This segment looks at how blood sugar impacts brain volume shrinkage in the normal range:

4.4 - 5.2 This segment is the lowest risk area. Optimal for Longevity patient is 5.2 or below.

5.3 - 5.5 In this blood sugar level range, a patient, can lose about 3.5 grams of brain volume per year. This volume loss is equivalent to roughly ounce, or a slice of cheese, every five years.

5.6 - 5.8 At this level a patient would expect to see about 4.3 grams of brain volume loss per year. This segment identifies the potential risk of being "pre-diabetic." At 5.7 you officially move into a pre-diabetic range. Risks drastically increase for damaged blood vessels, heart attacks, strokes, and early dementia.

5.9 - 6.5 This segment is in the upper range of normal identifying the potential risk of being "pre-diabetic." Brain volume loss is about 7.5 grams of brain volume per year, which results in one ounce, or about one slice of cheese, every four years. If you have 40 years left to live, at one ounce every four years, that is over a half a pound of your brain that will disappear, assuming you started with the average brain volume of 1350 grams.

6.6 Anything above this level, is considered the beginning of the diabetic range.

If you are already experiencing some brain fog, memory loss, or dullness in thinking, there is a high likelihood your brain is on the downward trend. The good news is that we can help with your aging brain, through modern science and the medicine practiced at Longevity Medical Clinic.