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Insulin Resistance (IR) Tests

Test	*Result*
Fasting Insulin	Lower than 5 mU/L is good; higher than 12 mU/L makes IR very likely[1]
Fasting Blood Glucose	Should be less than 85[2]
Fasting triglycerides (fat in the blood)	Ideally less than 100 mg/dl. Over 150 mg/dl makes IR very likely (Note: if you are African-American you can have very low fasting triglycerides but still have insulin resistance.)[3]
HDL (so-called "good cholesterol")	Higher than 40 mg/dl in men is good Higher than 50 mg/dl in women is good[4]
Triglycerides/HDL ratio	Non African-American: Below 3.0 mg/dL (1.2mm/L) is good African-American: Below 2.0 mg/dL (1.2mm/L) is good[5]
Waist Index	Non-Asian men: waist circumference (cm) ÷ 94 South Asian/Chinese men: waist circumference (cm) ÷ 90 Japanese men: waist circumference (cm) ÷ 85 Non-Japanese women: waist circumference (cm) ÷ 80 (Not a reliable indicator in Japanese women) Below 1.15 is good[6,7,8]
HsCRP (highly-sensitive C-reactive protein): this is a marker of inflammation	Lower than 1 mg/dl is good[9]
Uric Acid	Lower than 6 mg/dl in men is good Lower than 5 mg/dl in women is good[10]

Insulin Resistance Formula

Multiply your fasting blood glucose by your fasting triglycerides (both in mg/dl) and divide by 2. Then take the natural log of this number.

Men with values over 8.82 and women with values over 8.73 are most likely to be insulin resistant and have double the chance of developing type 2 diabetes in the future.[11]

Note: the natural log function (ln) is found on a standard scientific calculator. Most smartphone calculators include these functions in landscape view.

$$\ln\left(\frac{\text{Fasting Blood Glucose} \times \text{Fasting Triglycerides}}{2}\right)$$

References:

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