# **ARE YOU TOO SWEET?**

## **UNDERSTANDING INSULIN RESISTANCE**

# What is Insulin Resistance?

Insulin is the hormone responsible for transporting glucose from the blood into the cell to be used as energy. When blood sugar increases after a meal, the pancreas secretes insulin into the bloodstream. When someone is insulin resistant, the cells become "resistant" to the uptake of glucose. Due to the weak response to insulin, the pancreas overcompensates by secreting more insulin in an attempt to maintain a healthy blood sugar balance.

#### Causes

There are both genetic and lifestyle factors that cause insulin resistance:

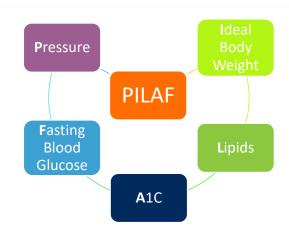
- Excess weight (specifically around) the abdomen)
- Sedentary lifestyle
- > High carbohydrate/high sugar diet
- ➤ High stress lifestyle

# **Symptoms**

- ✓ Lethargy
- ✓ Difficulty concentrating/brain fog
- ✓ High blood pressure
- ✓ Mood swings
- ✓ Depression
- ✓ Fatique after meals
- ✓ Extra abdominal weight
- Sugar cravings
- ✓ Inflammation



#### Measure & Monitor Your Risk



Pressure - High blood pressure has been shown to be an independent risk factor. Keep your blood pressure within the 100-120/60-80 mmHG range.

Ideal Body Weight – Excess abdominal fat can secrete hormones which supply an excess of free fatty acids causing fatty tissue in muscles and organs. This promotes inflammation.

Lipids - Elevated lipids including cholesterol, LDL, HDL, and triglycerides usually indicates insulin resistance. Keeping lipids within normal range can reduce your risk of Diabetes and heart disease.

A1C - Your A1C measures your average blood glucose over 2-3 months. Keeping your A1C values low will allow for better blood sugar control and lower levels of long-term complications.

Fasting Blood Glucose – A consistent fasting blood glucose level of 80-100 mb/dL is a good indicator of insulin sensitivity.

Check in with your health care practitioner to have these measures monitored for your best prevention!





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## **Dietary Intervention & Prevention**

Insulin resistance increases your risk of developing type 2 diabetes. Consider any symptoms that you experience or warning signs that require a change in lifestyle choices. You may be able to prevent the development of diabetes by making changes to your diet and participating in regular exercise.

### What to include:

Healthy Carbohydrates: Yes - not all carbohydrates come in the form of white flour and processed foods! Actually, some of the healthiest foods for blood sugar are carbohydrates like fruit in moderation, lots of fibre-rich vegetables, nuts, and legumes! Fibre in healthy carbohydrates helps to moderate how your body digests and metabolizes glucose and helps to balance blood sugar.

**Lean Protein:** Lean proteins like chicken, turkey, seafood, and fish are good alternatives to rich and high fat red meats. Every cell requires protein and is one of the building blocks of life!

**Good Fats:** While still high in calories, fats have many health benefits. Mono and polyunsaturated fats help to lower your cholesterol. Healthy Omega 3 fats from fish are beneficial to nerve health aiding in prevention of neuropathy and aid in heart health! Include foods such as, avocados, coconut oil, olive oil, and walnuts.

### The New PILAF



1 cup whole-grain rice
1 tablespoon butter
1 shallot, minced
2 green onions
1 carrot
1/2 cup snow peas
1/2 cup mushrooms
2 tbsp. white wine
1 1/2 cup
chicken/vegetable stock
Salt or pepper to taste
2 tbsp. toasted sesame
seeds

- 1. Soak rice 2 hours to shorten cooking time. Rinse and drain.
- 2. In a medium-size non-stick saucepan, heat butter and sauté shallot until softened. Chop vegetables and sauté about 3 minutes. Add rice to vegetables; stirring to coat. Cook about 2 minutes.
- 3. Stir in wine broth; bring to a boil. Reduce heat, cover and simmer about 25 minutes, until rice is tender, and liquid is absorbed.
- 4. Remove from heat and fluff with a fork. Season with salt and pepper. Garnish with sesame seeds.

Note: Try this recipe with other vegetables such as peas, bell peppers, zucchini, radicchio, radishes, green beans, asparaqus, etc.

Servings: 6 Calories per serving: 182 Fat: 4g, Sodium: 127mg, Carbs: 31g Protein: 4g

Sources: https://www.emedicinehealth.com/insulin\_resistance/article\_em.htm https://www.masteringdiabetes.org/insulin-resistance-checklist/ https://www.easy-diabetic-recipes.com/diabetic-rice-pilaf.html http://www.holistichelp.net/insulin-resistance-symptoms.html https://www.mayoclinic.org/diseases-conditions/diabetes/in-depth/diabetes-diet/art-20044295







