

9. How to manage Insulin resistance

Insulin resistance occurs from consuming an excess of refined unnatural commercial sugary foods, an unbalanced lifestyle, and physical inactivity. It is the starting dysfunction that causes PCOS and Obesity. The only way to break the vicious cycle of Insulin resistance is to adopt a holistic natural low sugar diet, a balanced lifestyle, and normalize physical activity.

(For details, check the section *Holistic Meal & Balanced Lifestyle* on the website www.foodlifestylebalance.com)

a) ***Food and lifestyle change-*** Aim for 7-10% weight loss if overweight or obese. Even when weight is average, food and lifestyle changes will help fix the hormonal imbalances. These will lead to weight loss, normalize the menstrual cycle, raise female hormone levels, lower male hormone levels, reduce Hirsutism, and overcome Infertility. The fundamental changes required are:

- Adopt low Glycemic natural, primarily plant foods
- Include herbs and spices in the diet which improve insulin resistance- Apple cider vinegar, Fenugreek (methi) seeds, Cinnamon, Turmeric, Ginger
- Minimize the number of meals to two major meals a day with no snacks in between the meals
- No eating after 8 PM
- Keep a time difference of 14-16 hours between dinner and the next morning meal and a time difference of 6-7 hours between day meals.
- Assign 7-8 hours of sleep time daily. Keep in mind that waking up early before 7 AM is the key to ensuring timely sleep and deep rejuvenating sleep
- Stay physically active the entire day, ensuring at least 10,000 steps a day. Make 30-45 minute aerobic exercise (brisk walk, stair climbing, cycling, or vigorous workout) a daily routine.

b). ***Improve insulin sensitivity with Medical drugs***—Two groups of drugs commonly used to improve Insulin Sensitivity in PCOS are :

Metformin--It is an antidiabetic medication explicitly prescribed for managing insulin resistance in PCOS. It also reduces the level of the male hormone testosterone. The duration of therapy maybe 3-6 months or longer depending on

symptom resolution. If Metformin does not help, the alternative antidiabetic medications prescribed TZDs (see below). However, Metformin is the most popular and effective drug for managing insulin resistance as well as Hirsutism.

TZDs (Thiazolidinediones)- If the response to Metformin is not optimal, TZDs are the second option. The drugs in this category are Pioglitazone (Actos), Trioglitazone (Rezulin), and Rosiglitazone(Avandia). The doctor will determine the right medication for you as there are specific side effects to these drugs.