Diabetes- a paradigm shift in management- reversal should be the aim of management

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DPAEDICS

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Aims of this lecture

- At the end you should be able to understand the concept of Insulin resistance- the most important factor leading to type 2 diabetes
- You should be able to understand the concept of a healthy way of eating and not just use it vaguely
- You should be able to offer this advice to a third of the people you treat
- You should be able to point your patients in the right direction to REVERSE their type 2 diabetes

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Diagnostic criteria for diabetes

- Diabetes symptoms (e.g. polyuria, polydipsia and unexplained weight loss for Type 1) plus: a random venous plasma glucose concentration ≥ 11.1 mmol/l or
- a fasting plasma glucose concentration \geq 7.0 mmol/l (whole blood \geq 6.1 mmol/l) or
- two hour plasma glucose concentration ≥ 11.1 mmol/l two hours after 75g anhydrous glucose in an oral glucose tolerance test (OGTT).
- HbA1C of 48 mmol/l (6.5%)



You may have heard these comments...

- 'I can't eat carbs because I have diabetes'
- · 'Fruit is bad for me because I'm diabetic'
- 'This is genetic and there's nothing I can do about it'
- 'I just need willpower to eat less junk'
- 'I need more protein from chicken and fish to fill me up'
- · 'I've heard keto can reverse diabetes'









Insulin resistance- what is it Inability of insulin to do its job effectively – i.e. it cannot move glucose from the blood stream into the cells Insulin resistance is a protective mechanism from evolutionary times when there was a scarcity of food, It is now a problem because of excesses of food especially fatty and processed foods All cells can use glucose or ketones from fat metabolism for energy except RBC- RBC have no nucleus and no mitochondria Liver has a vital role of keeping a steady stream of glucose into the blood so that RBC can utilise the glucose from cannibalisation of amino acids during ketosis as a result of starvation (gluconeogenesis) Muscles can use ketones during this phase normally and must not use the glucose during times of starvation- this is the essence of insulin resistance

4.0



Normal cell- insulin effect









Kempner, Lohmann Peschel, & Schlayer. Effect of Rice Diet on Diabetes

Mellitus Associated With Vascular Disease. Postgraduate Medicine, 1958

White Rice

Fruit

Fruit

Juice

White Sugar

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Anderson JW, Ward K. *High-carbohydrate, high-fiber diets for insulin-treated men with diabetes mellitus*. Am J Clin Nutr. 1979

- Criticism that all diets help diabetes if there is a weight loss
- 20 patients with insulin treated type 2 Diabetic patients with a 37% fat diet switched after 7 days to a low fat (9% fat) diet for 16 days but-WEIGHT MAINTAINING
- Insulin requirements went down by 58% in low fat diet
- 10 out of 20 patients could stop using insulin altogether!
- There are other factors such as phytonutrients and fibre in whole plant that help control diabetes

Insulin resistance

Ketones from fat metabolism, and animal proteins seem to increase insulin resistance



Eat the Rainbow

Anti cancer, anti heart disease , anti arthritis, anti aging



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What to eat to get the joy of living. Lean into a WFPB lifestyle

Every meal you eat can be made plant based

NO CALORIE COUNTING

- Breakfast:
- Porridge Oats with nuts, banana, berries, Rye bread with avocado, Wholemeal bagel with hummus, Pancakes, Tofu scramble, idlis, dosa, miso soup, conjee



What to eat to get the joy of living. Lean into a WFPB lifestyle

Try foods from various world cuisines

- Snacks: Nuts and seeds, crudites or crackers with hummus
- Green smoothies, Fruit smoothies sip slow for salivary digestion
- Propercorn

Eat mainly whole foods but transition foods like vegan sausages, vegan pizza, vegan cheese, IMPOSSIBLE or BEYOND Burger are alright as a treat



What to eat to get the joy of living. Lean into a WFPB lifestyle

treat

Lunch and Dinner

- Baked Potatoes, Sweet potatoes
- Brown rice with curry
- Kidney bean stews
- Soups
- Stir fries
- Salads



Eat mainly whole foods but transition foods like vegan sausages, vegan pizza, vegan cheese, IMPOSSIBLE or BEYOND Burger are alright as a



What should we not eat or avoid?

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Mastering diabetes method Green light foods include all fruit except durian, avocado and dates, intact whole grains, all vegetables, all legumes except soya beans, herbs and spices- eat ad libitum Amber light foods- whole grain or bean pastas, refined grains, avocados, nuts and seeds, soybeans, coconut meat, whole grain bread and tortillas, soya products Red light foods- red meat, poultry, eggs, dairy products, fish, sea food, cooking oils, sugar and sugar sweetened beverages

Personal story- type 2 diabetic since 2018

• Pre 2017









Resources for your patients

- Documentary- forks over knives on Amazon Prime
- www.masteringdiabetes.org website and book
- DRC Diabetes reversal company
- Plant based Health Professional UK please join the organisation it is a great source of health education – nutritionists and dieticians
- @rohinibajekal @lisasimon
- Google- whole food plant based diet
- Recipes by veganricha and rainbowplantlife on youTube
- My Instagram handle @drrajivbajekal