

Natural Low GI Fruit Sugar

Understanding The Malaysian Diet

3.1 Identifying the Carbohydrate Family

The **Malaysian diet** has a **high** proportion of **carbohydrate** intake.

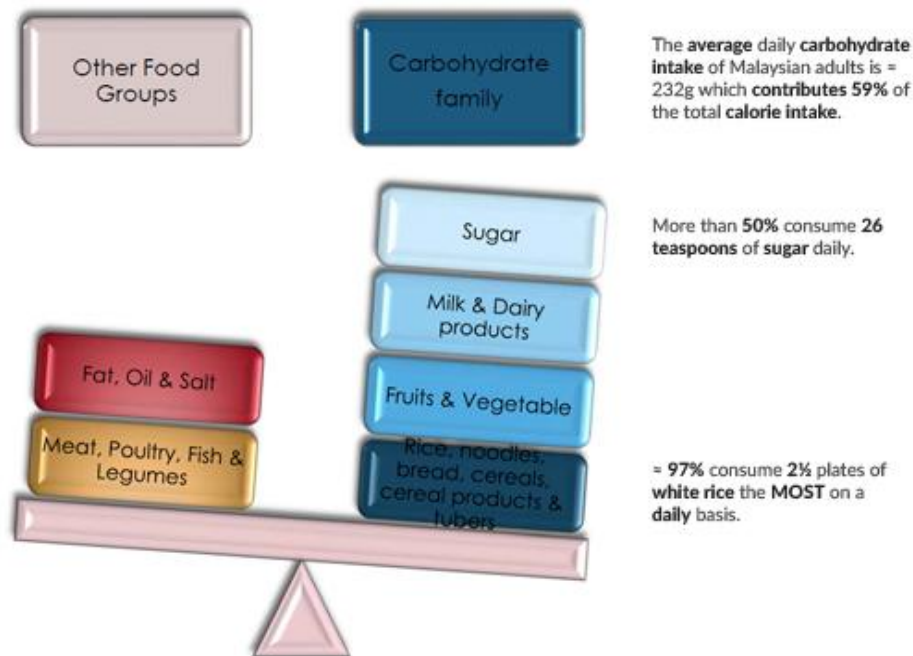


Figure 3.1

The Weightage of the Carbohydrate Family against Other Food Groups based on the Malaysian Food Pyramid (Refer to [Appendix A at the References section](#) for a better understanding)

Carbohydrate **quantity** and **quality** is important

▶ ▼ Risk of Diabetes

▶ Weight management

▲ intakes of carbohydrate staples
(rice, noodles, steamed bread and bread)

= ▲ risk of diabetes especially
Asian populations *7,22

Studies reported consumption of *17

White rice	Brown rice
≥ 5 servings per week 17% risk of diabetes	≥ 2 servings per week 11% ▼ risk of diabetes
Switching from 50g/day of white rice to whole grains, 36% ▼ risk of diabetes	

Management of diabetes and obesity

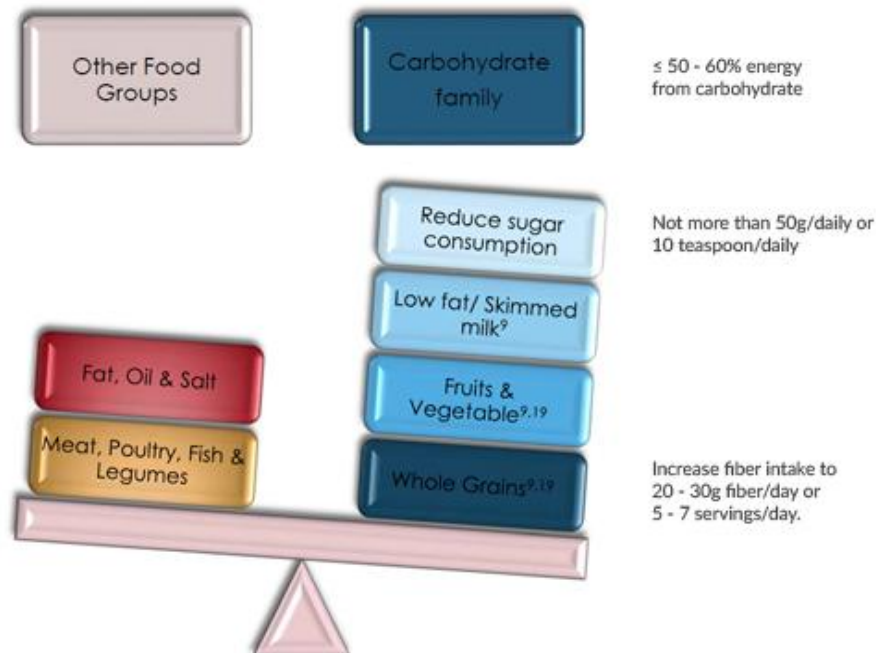
Monitor & choose healthier carbohydrates

*9

- ▶ Achieve glycaemic (blood glucose) control

3.2 Make Your Carbs Count in the Prevention & Management of Diabetes

The Ministry of Health (MOH) recommends



1. Increase Fiber; Whole Grain, Fruits and Vegetables

Whole grain consumption; > 2 serving/day, ▼ 21% risk of diabetes *3

Evidence from the **Mediterranean diet**; high in whole grains, fruits & vegetables, nuts, and lower intake of red meat reported a **20%-58% protection** against **diabetes** *12,13

- ▼ weight *3,14
- ▼ fasting blood glucose *4,14
- ▼ insulin level *14
- ▼ risk of hyperglycaemia (high blood glucose) *4,8

2. The use of glycaemic index (GI) and load (GL) of foods may provide additional benefit in regulating blood glucose level.*2,6,8,9

(Refer to the next section, Choosing Carbohydrates with Glycaemic Index (GI) for a better understanding)
Whole grains are high in dietary fibre, resistant starch, and oligosaccharides which constitutes a lower glycaemic index (GI).*1,24

Evidence of Low GI Studies with Beneficial Results

Rice + soybean & Multigrain rice vs. White rice

*1

≈6280kJ + ≤ 30% energy from fat vs. ≈6280kJ + 3 servings Medium & 1 High GL5

▼ weight *1,20

▼ fasting blood glucose *1

▼ HbA1c by 0.4% *5,21

(▼ 1% HbA1c = ▼ risk of complications by 21%) *16

Improved lipid profile (total cholesterol & LDL cholesterol) *20

3.Reduce sugar consumption

Limit sugary foods and drinks

Opt for different types of sweeteners: Sweeter than normal sugar hence, ▼ intake of sugar

Natural/nutritive sweetener; i.e. fructose or sugar alcohol

Artificial/non-nutritive sweetener; i.e. aspartame, Stevia

In a nutshell a healthier diet should incorporate

▲ Whole grains

▲ Fruits & vegetables

▲ Fibre

▼ Low glycaemic index

▼ Sugar intake