

Discover your path to

WELLNESS NUTRITION EXERCISE





NAME: KITID: DATE TESTED:

INTRODUCTION

YOUR RESULTS

DIET

LIFESTYLE

SUPPORT



Your CarbChoice profile reveals whether your starch carbohydrate processing activity falls into one of three ranges:







Low Activity Processing

Individuals who are low processing should decrease their intake of starch carbohydrate and consider changing to higher fibre carbohydrates. High starch carbohydrate intake is associated with a greater risk of obesity, insulin resistance and diabetes.

Moderate Activity Processing

Individuals with moderate processing ability can tolerate more starch carbohydrate such as grains. High starch carbohydrate intake is associated with a higher risk of weight management issues and related problems.

Higher Activity Processing

Individuals with high range processing ability can tolerate a higher level of starch carbohydrate intake, such as grains which has less impact on weight management and insulin levels.

They have a lower risk of obesity.





here is your CarbChoice result indicating that you are a Moderate Range Starch Carbohydrate processor.



Classified in this CarbChoice report as the population group most likely to have moderate capacity to process starchy carbohydrates.

Your moderate processing capacity means:

- You may not produce as much of the enzyme in your saliva needed to break down the starch found in carbohydrates.
- You may have moderate tolerance of high-starch diets.
- You may be at a moderate risk of, and predisposition to, obesity.
- You may have reduced glycaemic control resulting in decreased glucose or blood sugar control.
- You may have an moderate risk of metabolic abnormalities which occur when the normal process of metabolism is or becomes disrupted.
- You may be at moderate risk of obesity compared to individuals with a higher processing result.
- You may be at slightly higher risk of insulin resistance and diabetes if you are consuming a high starch carbohydrate diet.

Dietary Recommendations

Your moderate starch carbohydrate processing capacity means you should aim to reduce refined and processed starchy carbohydrates in your everyday diet.

Trial a low carbohydrate diet providing 25-40% of overall daily energy intake (approx. 125 - 175g for women) made up of low starch options.

Lifestyle Recommendations

You should undertake moderate to highintensity physical activity. Before starting this type of exercise, you should discuss this with your fitness or health practitioner, especially if pregnant, breastfeeding, suffering from any medical condition or injury.



Bonnefond et al. 2017, **Relationship between salivary/pancreatic amylase and body mass index: a systems biology approach**, BMC medicine (<u>https://www.ncbi.nlm.nih.gov/pmc/</u> <u>articles/PMC5322607/</u>)

Falchi et al. 2014, **Low copy number of the salivary amylase gene predisposes to obesit**y, Nature Genetics (<u>https://www.ncbi.nlm.nih.gov/pubmed/24686848/</u>)

Lovegrove et al. 2017 **Role of polysaccharides in food, digestion, and health** Critical Reviews in Food Science and Nutrition (<u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5152545/</u>)

Koibuchi and Suzuki 2014, **Exercise upregulates salivary amylase in humans (Review)**, Experimental and Therapeutic Medicine (<u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3961115</u>)

Mandel and Breslin 2012, **High Endogenous Salivary Amylase Activity Is Associated with Improved Glycemic Homeostasis following Starch Ingestion in Adults**, Journal of Nutrition (<u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3327743/</u>)

Mandel et al. 2010, **Individual Differences in AMY1 Gene Copy Number, Salivary α-Amylase Levels, and the Perception of Oral Starch**, PloS One (<u>https://www.ncbi.nlm.nih.gov/</u> pmc/articles/PMC2954178/)

Marcovecchio et al. 2016, Low AMY1 Gene Copy Number Is Associated with Increased Body Mass Index in Prepubertal Boys, PloS One (<u>https://www.ncbi.nlm.nih.gov/pmc/articles/</u>PMC4858278/)

Mejía-Benítez et al. 2015, **Beneficial effect of a high number of copies of salivary amylase AMY1 gene on obesity risk in Mexican children**, Diabeticalogia (https://www. ncbi.nlm.nih.gov/pubmed/25394825/)

Perry et al. 2007, **Diet and the evolution of human amylase gene copy number variation**, Nat Genetics (<u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2377015/</u>)

Samaha et al. 20013 **A low-carbohydrate as compared with a low-fat diet in severe obesity**, New England Journal of Medicine (<u>https://www.ncbi.nlm.nih.gov/pubmed/12761364/</u>)

Santos et al. 2012, **Copy number polymorphism of the salivary amylase gene: implications in human nutrition research**, Journal of Nutrigenetics and Nutrigenomics 2012 (<u>https://www.ncbi.nlm.nih.gov/pubmed/22965187</u>)

Viljakainen et al. 2015, Low Copy Number of the AMY1 Locus Is Associated with Early-Onset Female Obesity in Finland, PLoS One 2015 (<u>https://www.ncbi.nlm.nih.gov/pmc/articles/</u><u>PMC4489572/</u>)

Yang et al. 2015, **The roles of AMY1 copies and protein expression in human salivary α-amylase activity**, Physiology & Behaviour (<u>https://www.ncbi.nlm.nih.gov/pubmed/25446200/</u>)