



The following information is aimed for use by Registered Dietitians who are providing nutrition counselling to those with cardiometabolic risk.

Changes in diet can improve specific metabolic abnormalities and reduce overall prevalence of metabolic syndrome. For most, moderate weight loss in the range of 5-10% is beneficial if achievable; as are diet patterns that limit highly processed foods and promote whole foods eating patterns. From the evidence to date, both weight loss and Mediterranean diets without a weight loss focus have documented benefits for prevention of diabetes and/or cardiovascular disease. Thus, there are multiple evidence-based options for counselling to choose from. The many options for dietary management of metabolic syndrome and its specific abnormalities led to the development of a visual Dietary Management Care Map as a guide to dietitian thinking about the counselling strategies.

The care map represents the key decision processes involved in diet counselling for metabolic syndrome. Revised from the originally published version created for the CHANGE Program,¹ the care map incorporates a number of evidence-based dietary strategies, which when combined with behavioural counselling, can help to achieve positive dietary change and improve specific metabolic syndrome abnormalities. A two-step process is shown whereby counsellors first focus on counselling to eat balanced meals and then on more specific changes as clients gain skills and confidence. The specific guidance is directed to individual risk factors, including elevated waist circumference, high blood sugars, high blood pressure, and/or abnormal lipids.

The dietary program is tailored to each individual's needs and lifestyle. Joint goal setting to achieve SMART goals is used throughout the program to discuss and prioritize feasible and relevant food behaviour changes. Self-monitoring helps people stay on track. Regular and sustained follow-up over several months is important to provide education and support and actively monitor dietary changes and progress.

¹ Royall D, Brauer, P, Bjorklund L, O'Young O, Tremblay A, Jejeebhoy K, Heyland D, Dhaliwal R, Klein D, Mutch DM.
Development of a dietary management care map for metabolic syndrome. *Can J Diet Pract Res.* 2014;75:132-39.



Nutrition Assessment

Assess baseline Eating Pattern [Med Diet Score and Food Group Worksheet]



Education and Joint Goal Setting

Metabolic syndrome overview

- Address intention
- Behavioural Change Techniques*
- Address barriers**



Basic Dietary Principles

General Recommendations for Healthy Eating / Mediterranean Diet Pattern

- Balanced meals
- Regular meal pattern
- Decrease 'other foods' (e.g. baked goods, other desserts, sweets, sweetened drinks, salty snack foods)
- Cook more from "scratch"; limit intake of processed, pre-prepared foods

Eating the Mediterranean Way:

- Increase vegetables, fruits, whole grains, legumes, fish, nuts, and olive oil
- Limit red meat, processed meat, butter, cream and hard margarine
- Wine in moderation



Additional Targets for Specific Changes

A. Weight Loss / Elevated waist circumference target behaviours

- Portion control
- Decrease calories
- Snacking and avoiding overeating

B. Diabetes or Impaired Glucose Tolerance target behaviours

- Decrease added sugars
- Low glycemic index/load
- Carbohydrate counting

C. Hypertension target behaviours

- Low sodium
- Low fat dairy

D. Dyslipidemia target behaviours

- Low saturated fat/high polyunsaturated fat
- Decrease added sugars
- Increase fibre/soluble fibre
- Plant sterols
- Limit alcohol



Planned Follow-up

Weekly: 1 – 12 weeks;
Monthly: 4 – 12 months

- Assess food behaviour changes made
- Joint goal setting
- Establish dietary goals for next visit; provide support

Nutrition Assessment (3 months + 12 months)

- Assess Eating pattern *Food Guide and Med Diet Scoring Worksheet*

* Behavioural Change Techniques

- | | |
|----------------------------------|-----------------------------|
| • Goal setting / review of goals | • Motivational interviewing |
| • Self-monitoring | • Problem-solving |
| • Action planning | • Graded tasks |
| • Feedback on performance | • Consequences of behaviour |

** Address Barriers

- | | |
|---------------------------|-------------------------|
| • Low income | • Adverse work schedule |
| • Language | • Cooking skills |
| • Low literacy / numeracy | • Social support |
| • Transportation | • Emotional eating |
| • Family responsibilities | • Hunger |
| | • Other |