





NUTRITION COMMUNICATION FOR HEALTH CARE PROFESSIONALS

Delivering evidenced-based nutrition advice for people with heart disease and type 2 diabetes mellitus

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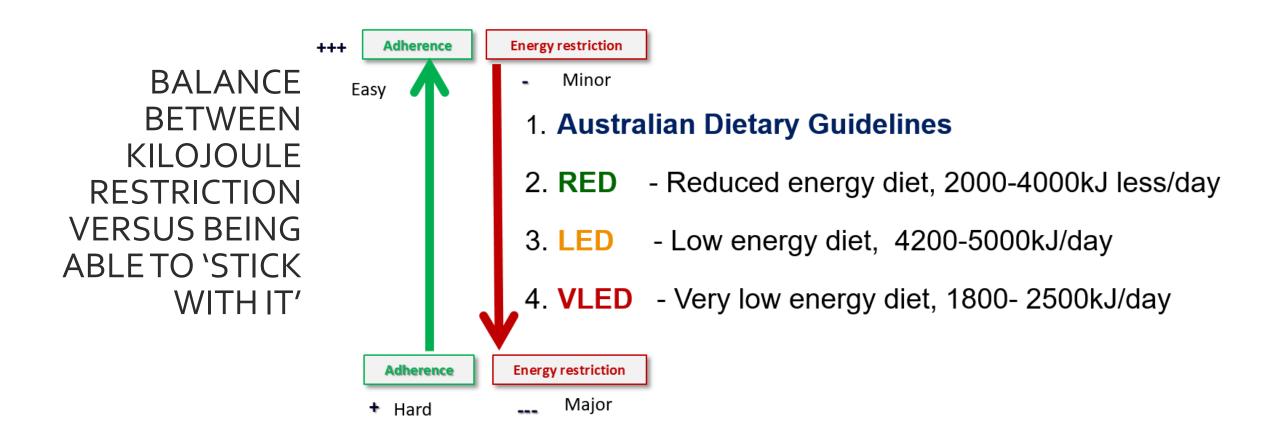
OVERVIEW

Learning objectives:

- 1. Identify the main modifiable and non-modifiable contributors to risk of type 2 diabetes mellitus and heart disease
- 2. Understand the hierarchy of nutrition advice for weight and chronic disease management
- Understand components of basic communication and counselling skills
- 4. Identify how to spot a fad diet



SUMMARY FROM 'THE SCIENCE OF WEIGHT LOSS' WEBINAR



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5A'S FOR USING TECHNOLOGY FOR IMPROVING DIETARY INTAKE AND WEIGHT MANAGEMENT

- **1. Ask & Assess:** Ask permission to discuss weight management, assess current health status (BMI, waist circumference, clinical markers/comorbidities), previous diet and weight management attempts, readiness to change, barriers and facilitators to change.
- 2. Advise: Benefits of improving diet quality and weight loss, benefits of using technology for self-monitoring,
- 3. Assist: Support to manage weight (creating an energy deficit + behaviour change), selecting appropriate technology tools to help eat better, manage weight
- **4. Arrange:** Follow-up to review progress. Add/subtract technology tools. Grade up or down the kJ restriction (dietary approaches scale). Refer to dietitian. Evaluate nutritional status, weight status and health long-term.

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The Science of Weight Loss: Dispelling Diet Myths

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Nutrition Communication for Health Professionals: Key concepts

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Nutrition Communication for Health Professionals: Applying skills

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MODIFIABLE and NON-MODIFIABLE risk factors TYPE 2 DIABETES and HEART DISEASE

Non-Modifiable

- Family history of diabetes or heart disease
- > 55 years of age
- > 45 years of age and o'wt or high blood pressure
- >35 years and from an ATSI, Pacific Island, Indian or Chinese cultural background
- Female who has given birth to a Baby >4.5kg
- Past gestational diabetes or polycystic ovarian syndrome*
- Being a male or a post-menopausal women †
- Severe mental illness +

Modifiable

- Poor diet quality and unhealthy eating patterns
- Excessive alcohol consumption †
- Physical inactivity
- Overweight or obesity (BMI >25kg/m²)
- High blood pressure (systolic ≥140 mmHg; diastolic ≥90 mmHg)
- High cholesterol levels (TC >4.0 mmol/L; LDL-C >2.0 mmol/L; HDL-C <1.0 mmol/L)
- Smoking
- High abdominal fat (female ≥80cm; ≥94cm male)+
- Diabetes ł





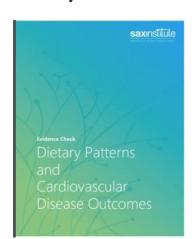
HEART DISEASE: SUMMARY OF EVIDENCE CHECK



- Dietary approaches to stop hypertension (DASH) diet has the strongest evidence (level A evidence) for primary prevention of heart disease
- Mediterranean diet was not as high as expected (level C evidence)
- Diet quality modifies association between BMI and heart disease in men and women - does not completely counter risk of heart disease related to obesity

Evidence check Dietary Patterns and Cardiovascular Disease Outcomes, 2017, C Collins, T Burrows and M Rollo

Combined associations of body mass index and adherence to a Mediterranean-like diet with all-cause and cardiovascular mortality: a cohort study. Michaelsson et al. PLoS Med, 2020



Dietary patterns and primary CVD prevention



		Blood pressure	Lipids	Weight or body composition	CVD events and/or mortality
EVIDENCE GRADE	Α	DASH	X	X	DASH
	В	X	X	X	Healthy/prudent
	С	X	Mediterranean	Low GI/GL	Mediterranean
	D	X	X	X	X

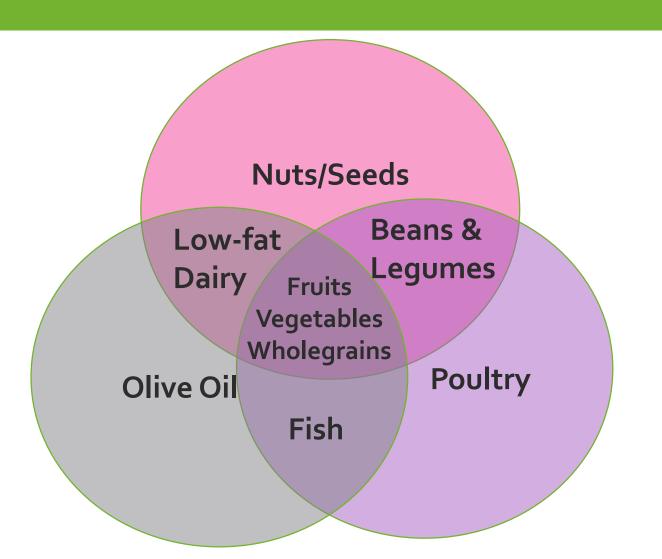
Dietary patterns and secondary CVD prevention



		Blood pressure	Lipids	Weight or body composition	CVD events and/or mortality
EVIDENCE GRADE	A	X	X	X	X
	В	X	Portfolio	X	X
	C	DASH Weight loss or Calorie- restricted	X	Weight loss or Calorie-restricted	X
	D	X	X	X	X

Similarities across all dietary patterns for heart health

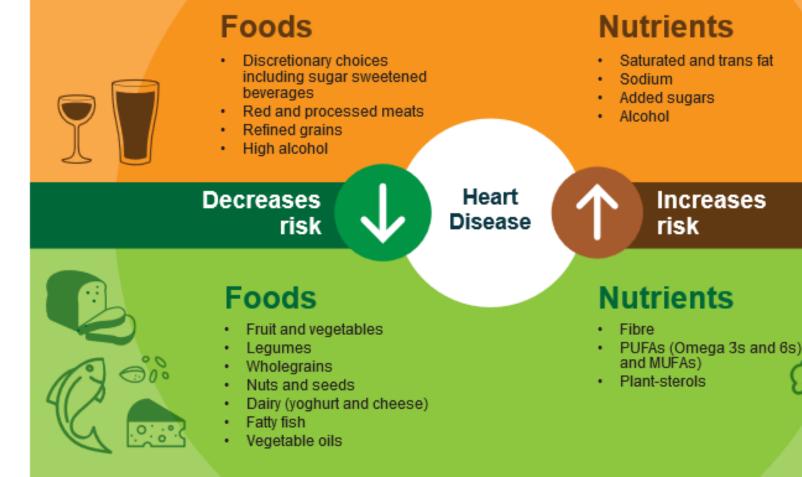




DASH - only diet to specifically recommend salt (sodium) reduction

> Weight loss diets restrict kilojoules

KEY MESSAGES: HEART DISEASE Foods & Nutrients that INCREASE or DECREASE risk



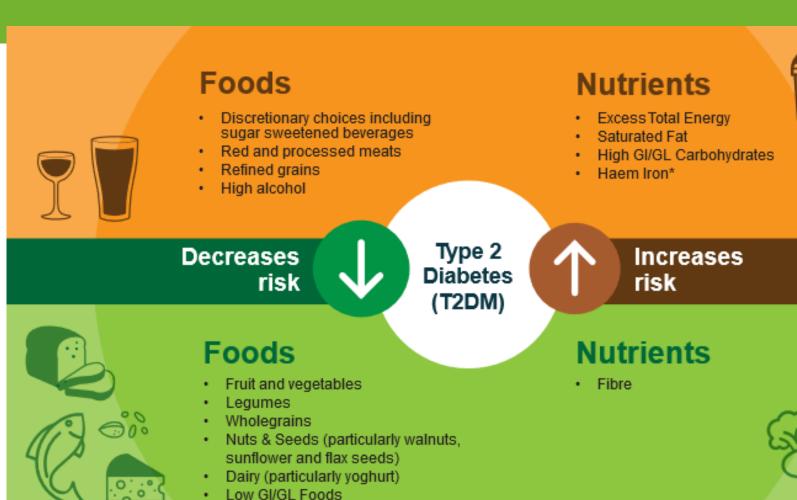


DIABETES - EVIDENCE



- No large evidence synthesis on dietary patterns
 - Recent systematic review on low-carb diets and diabetes remission
- General recommendations provided by Diabetes Australia
 - Eat regular meals and spread them evenly throughout the day
 - Eat a diet lower in fat, particularly saturated fat
 - Choose carbohydrate foods that are lower GI
 - If you take insulin or diabetes tablets, you may need to have between meal snacks
- Large focus on diabetes education
 - Everyone's needs are different. All people with diabetes should see an Accredited Practising Dietitian in conjunction with their diabetes team for individualised advice.

KEY MESSAGES: TYPE 2 DIABETES Foods & Nutrients that INCREASE or DECREASE risk





Oily Fish (herring, mackerel, sardine,

salmon & tuna)

EVIDENCE-BASED NUTRITION MESSAGES to communicate with your patients

- 1. Enjoy a wide variety of foods from core food groups; fruit, vegetables, wholegrains, lean meats and meat alternatives, dairy foods
- 2. Increase fruit, vegetables and wholegrains
- 3. Limit intake of energy-dense, nutrient-poor foods; higher in added sugar, salt, saturated fat
- 4. Avoid foods high in saturated fat
- 5. Focus on foods containing healthy fats: nuts, seeds, avocados, olive oil and fatty fish
- 6. Choose salt reduced options: salt reduced canned vegetables, soups, sauces and spreads
- 7. Limit alcohol to <10 standard drinks per week; maximum of 4 standard drinks on any one day
- 8. For Type 2 Diabetes; appropriate amounts of carbohydrates spread out across the day
- 9. Moderate intake of red meats (<350g/week)
- 10. Avoid processed meats



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NUTRITION HIERARCHY

Step 1: Healthy eating for all

- Australian Dietary Guidelines
- Australian Guide to Healthy Eating
- Healthy Eating Quiz
- No Money No Time website

Step 1

- Manage alcohol intake
- Boost variety of vegetables & fruit
- Use portion control
- Can refer to an APD for further support & education
- Drink more water

Recommended for everybody

Step 3: Weight management

- Reduced Energy Diet (2000-4000kJ less/day than usual intake)
- Low energy diet with a personalised daily energy target (4200-7000kJ/day)
- Prescribed meal plans via web based or in-person programs
- Home delivery energy controlled meals ordered on-line
- Monitor kilojoules via Calorie King or Easy Diet Diary
- Refer to an APD &/or psychologist for further support & education.

Recommended for people seeking weight management

General Guidelines

Follow the step that is the most easy to stick to

Step 4

Requires

referral to

a dietitian

Step 2

Step 2: Dietary patterns to help manage risk factors of heart disease & type 2 diabetes (T2DM)

- Healthy swaps to reduce kilojoule intake
- Promote food that lowers blood sugars, blood pressure &/or blood lipids to reduce heart disease & T2DM risk
- Carbohydrate quality, timing & amount to prevent & manage T2DM
- Can refer to an Accredited Practising Dietitian (APD) for further support & education to manage risk factors

Recommended for people with risk factors of T2DM & heart disease

Step 4: Personalised medical nutrition therapy

- Low energy diet (4200-7000kJ/day) for people with multiple previous weight loss attemps &/or risk factors & needing further support
- Very low energy diet (1800-2500kJ/day) for specific time period
- Use formulated meal replacements as part of energy controlled diet
- Medical review for medication changes related to weight loss
- Setup referral pathway
- Must be referred to an APD

Step 3

Consider referral to a psychologist

Recommended for people who need medical nutrition support provided by an APD along with review by medical doctor



STEP 1: HEALTHY EATING FOR ALL

Step 1. 'Healthy Eating for All'

- Based on the Australian Dietary Guidelines and the Australian Guide to Healthy Eating



Healthy eating for all

Recommended for everybody

- Australian Dietary Guidelines
- · Australian Guide to Healthy Eating
- Healthy Eating Quiz
- · No Money No Time website
- Manage alcohol intake
- · Boost variety of vegetables & fruit
- · Use portion control
- Drink more water
- Can refer to an APD (Accredited Practising Dietitian) for further support & education





Step 2. 'Dietary Patterns to Help Manage Risk Factors for Type 2 Diabetes and CVD'

- Focus on simple messages specific to health condition
- Requires slightly higher level of knowledge and skills



Dietary patterns to help manage risk factors of heart disease & Type 2 Diabetes (T2DM)

Recommended for people with risk factors for T2DM & heart disease

- Healthy swaps to reduce kilojoule intake
- Promote food that lowers blood sugars, blood pressure &/or blood lipids to reduce heart disease & T2DM risk
- Carbohydrate quality, timing & amount to prevent & manage T2DM
- Can refer to an APD for further support & education to manage risk factors



STEP 3: WEIGHT MANAGEMENT

Step 3. 'Weight Management'

- More complex step which requires nutrition expertise to provide appropriate advice for people

- This step requires more support to adhere to recommendations

and minor energy restrictions



Weight management

Recommended for people seeking weight management

- Reduced Energy Diet (2000-4000kJ less/day than usual intake)
- Low energy diet with a personalised daily energy target (4200-7000kJ/day)
- Prescribed meal plans via web based or in-person programs
- Home delivery energy controlled meals ordered on-line
- Monitor kilojoules via Calorie King or Easy Diet Diary
- Refer to an APD &/or psychologist for further support & education.





Step 4. 'Personalised Medical Nutrition Therapy'

- Involves a greater degree of energy restriction
- Should only be provided by an Accredited Practising Dietitian



Personalised medical nutrition therapy

Recommended for people who need medical nutrition support provided by an APD along with review by medical doctor

- Low energy diet (4200-7000kJ/day) for people with multiple previous weight loss attempts &/or risk factors & needing further support
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WHEN TO REFER TO A DIETITIAN

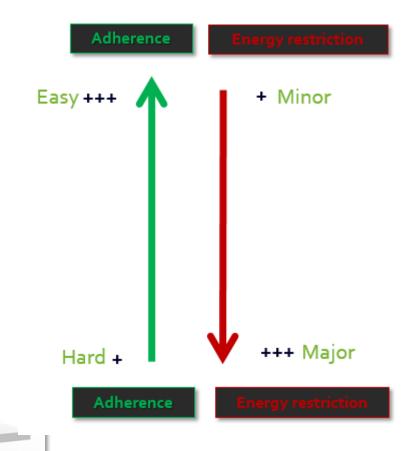


- Know the extent of the information/advice you can provide on nutrition
- If you are NOT an Accredited Practising Dietitian you can provide information on:
 - Australian Dietary Guidelines
 - Australian Guide to Healthy Eating
 - Communicate that these are basic guidelines on general healthy eating practices. The main goal
 is targeted is overall health
 - Minor energy restriction approaches: portion, control, healthy swaps, meal/snack ideas
- Refer to resources to support the information you are providing
- If a patient needs specific advice for specific medical condition or moderate-major energy restriction for weight loss refer to an Accredited Practising Dietitian (APD)
- If you don't know a lot about a specific topic and it is low on the 'diet' hierarchy then appropriate to refer onto APD

PERSONALISED MEDICAL NUTRITION THERAPY

Medical Nutrition Therapy individually targets *appropriate* level of energy restriction while optimising *adherence* (Approach may change over time)

APD counselling is designed to address barriers and other behaviour change





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TIPS FOR EFFECTIVE COMMUNICATION

5 key strategies to effective communication:

- 1. Identify and create opportunities for conversations on health gain
- 2. Use open-ended questions
- 3. Reflective practice
- 4. Listen more than you talk
- 5. Support individual goal setting using SMARTER goals (Specific, Measurable, Action-orientated, Realistic, Timed, Evaluated, Reviewed)



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Nutrition Communication for Health Professionals: Applying skills



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Paul is a 58 year old male. He has just gone to visit his physio about a sore shoulder.

- BMI 27 kg/m2
- Medical records show family history of heart disease.
- Enjoys a few drinks every night to help him relax.
- Usually when he has a few drinks he also consumes a large packet of chips.



- 1. How might you raise a conversation about Paul's eating habits and risk factors with him?
- 2. What are the nutrition priorities that align with the evidence?
- 3. What is one practical strategy that you could give to Paul to improve his diet quality today?

- 1. How might you raise a conversation about Paul's eating habits and risk factors with him? "Paul, you mentioned that you enjoy a few alcoholic drinks at night to help you relax, do you mind if we discuss this further?"
- 2. What are the nutrition priorities that align with the evidence?
 - Limit intake of energy-dense, nutrient-poor foods and drinks.
 - Limit alcohol intake to moderate amounts.
 - Avoid foods high in saturated fats.
 - Choose reduced salt options.
 - Enjoy a wide variety of foods from the core, basic food groups.
- 3. What is one practical strategy that you could give to Paul to improve his diet quality today?
 - Paul could complete the Healthy Eating Quiz to receive brief feedback on which food groups he may need to work on
 - Recommend he try reducing his portions by providing information on alcohol intake guidelines

Stephen is 55 years old and has a BMI of 34kg/m2. He has T2DM and at a recent GP visit, the GP recommends he get a blood test to check his blood sugar leveHbA1c and cholesterol.

- The results come back and show that he has high total cholesterol (including high LDL).
- The results also show his blood sugars have been poorly managed over the last few months
- Additionally since seeing his GP, Paul has also done the Healthy Eating Quiz which showed his intake of fruit and vegetables are low and his intake of animal products are on the higher end.



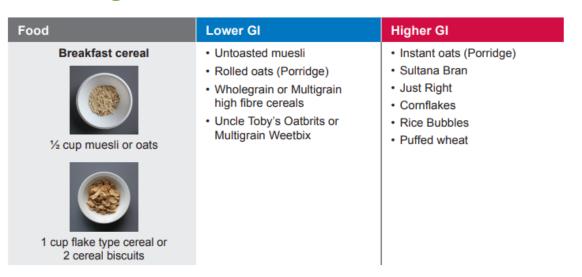
- 1. What might be some simple changes that Stephen can make to his food intake to help lower his cholesterol?
- 2. What other steps would you take in the management of Stephen's high cholesterol and poorly managed diabetes?



- 1. Try some healthy swaps to decrease his saturated fat intake and increase his mono- and poly-unsaturated fat intakes.
- 2. Increase fruits and vegetables to increase fibre may also need to reduce discretionary choices.
- 3. Refer him to an Accredited Practising Dietitian for advice on weight management and to do a thorough dietary assessment to identify other areas for improvement e.g. glycaemic index of foods, carbohydrate type, amount and timing

Choose cuts of meat with the least visible fat and remove fat or skin before cooking.

Limit		Swap for		
Wings and drumsticks (e.g. chicken, turkey, duck)		✓ Skinless turkey or chicken breast, thigh or tenderloins		
Skin on chicken, turkey or duckUntrimmed meats		✓ Trimmed meats (e.g. porterhouse, round steak, trimmed rump)		
X Ribs (e.g. pork or lamb)	929	✓ Trimmed bone meats (e.g. lamb cutlets, French shank)		
Highly marbled meat (e.g. scotch fillet)		✓ Deli meats (e.g. lean ham, roast beef, chicken or turkey)		
Deli meats: kabana, mortadella, salami, sausage, chicken loaf		✓ Fresh or canned fish		
		✓ Eggs		



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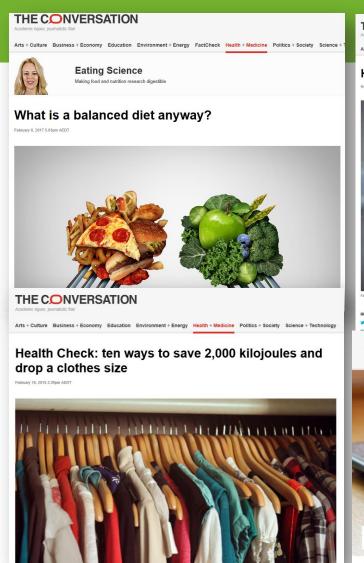
HOW TO SPOT A FAD DIET

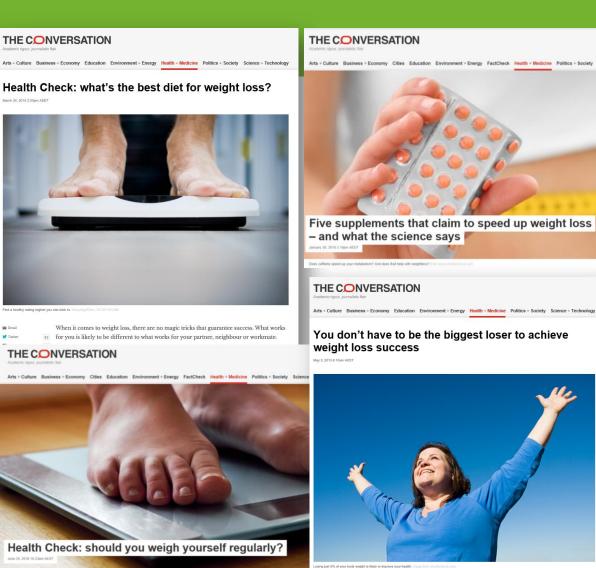
- Fad diets promise a quick fix
- Claim to have discovered a secret strategy not found by anyone else
- Commonly not based on scientific research to support the claim
- They can misrepresent research findings or use them out of context
- Exclude or severely restrict food groups or specific nutrients e.g. don't eat any carbohydrates
- They promote foods as good or bad
- Can be overly restrictive and can have set rules about when and where to eat
- Promote a celebrity

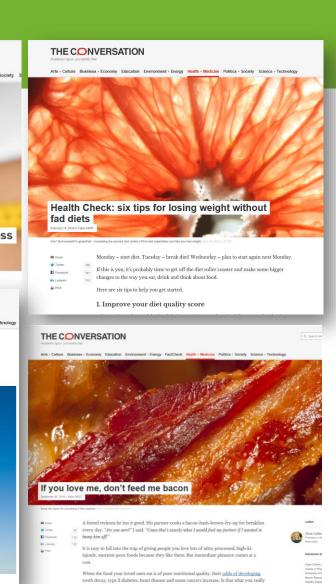




THE CONVERSATION







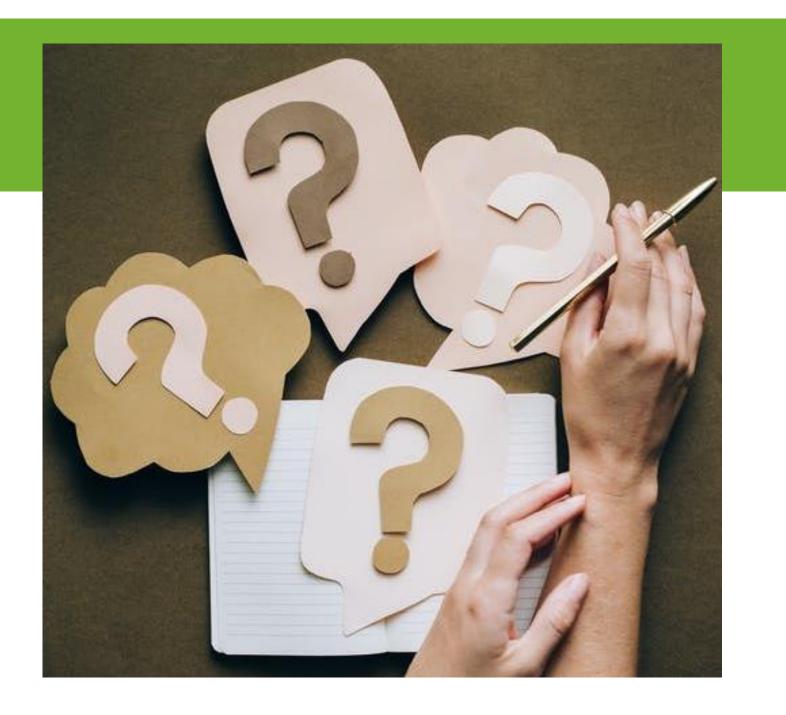
Fad or Fact	Pros	Cons	Evidence	'The bottom line'
Keto diet Very low carbohydrate, very high fat	 May promote weight loss Reduction in HbA1c 	 Limited fibre, leading to constipation Fatigue due to limiting our bodies preferred fuel source Limits food options Unsustainable Increase LDL-C 	 Rapid weight loss, initially due to loss of water Other diets are just as effective, more sustainable and safer High fat intake > increased lipids No research supporting keto being superior 	"The amount, type and frequency of your carbohydrate intake is important. Speak with your GP if you decide to commence this diet." Not recommended

Fad or Fact	Pros	Cons	Evidence	'The bottom line'
Limit carbohydrates to less than 26% on 2000kcal diet	 May promote weight loss May help manage health disease risk such as cholesterol and raised blood pressure 	 Difficult to adhere to Nutrient adequacy? Low energy levels as a result of less carbohydrate intake 	 Can lower HbA1c over 6 months Can help reduce weight and manage heart disease risk factors Anyone with diabetes must monitor BGL's and consult with their healthcare team 	"Define what low carbohydrate is" Refer to a dietitian

Fad or Fact	Pros	Cons	Evidence	'The bottom line'
Vegan	 Typically higher in fruits and vegetables Increased fibre intake Lower saturated fat 	 Potential for vitamin and minerals deficiencies. (i.e. B12, iron) May not eliminate highly processed foods (e.g. takeaway chips and soft drink are vegan) 	 A well-balanced vegan diet with high intake of vegan whole foods can lower risk of heart disease compared to diet high in animal fats 	"If implemented with advice from an APD a vegan diet can be well balanced and nutritious" Refer to a dietitian



Fad Diet or Fact	Pros	Cons	Evidence/Verdict	'The bottom line'
Mediterranean diet (Med diet)	 Increased unsaturated fats Increased fruit and vegetable intake Improved gut bacteria 	 Access and availability of foods in the Med diet E.g. cultural considerations, budget Various interpretations of the Med diet, some with, others without evidence High omega-3 intake (e.g. supplements) contraindicated those on blood thinners 	It does not guarantee weight loss unless you have a total calorie restriction.	"The purpose of this diet is to decrease inflammation. This diet is balanced and less restrictive than many other diets that claim similar effects. If completed in a calorie deficit can allow weight loss." You can provide this information if you feel confident to do so



TYPE 2 DIABETES AND TRENDING DIETS

Fad Diet/ Misconception	Pros	Cons	Evidence/Verdict	'The bottom line
Low GI Diet Consuming foods with a GI less than 55	 Improvement in BGL's after meals and lower average BGL's Help with weight management Improve blood cholesterol levels 	 Not all low GI foods are 'healthy' It is also important to consider total energy intake, saturated fat content and fibre – these all have an effect on diabetes 	Low GI diets are more effective in controlling HbA1c and fasting BGL's than higher GI diets in individuals with T2DM	"Incorporate quality sources of carbohydrates such as fruits, vegetables, wholegrain breads, cereals and other grain type foods. Avoid processed and refined carbohydrates such as lollies, white bread, cakes and biscuits." You can provide this information if you feel confident to do so



HEART DISEASE AND TRENDING DIETS

Fad Diet/ Misconception	Pros	Cons	Evidence/Verdict	'The bottom line'
Carnivore Diet Only to consume meat, fish and other animal foods like eggs and certain dairy products. Excludes all fruit, vegetables, legumes, nuts and seeds	 Meat nutrients are highly bioavailable Decrease appetite Weight loss, significant calorie deficit from removing all other food groups Low residue diet: meat nutrients is absorb high in the GI tract, leaving little residue to irritate or inflame the gut 	 Adaptation phase for gut microbiome causing pain, gas, bloating Nutrient Deficiencies due to restriction of majority of food groups Unsustainable Increases cholesterol 	 Animal products consist of predominately saturated fat and cholesterol, two factors essential to limit to benefit heart health. Very restrictive diet, so will aid weight loss. But it is unnecessarily restricting. Eating a balanced diet with a variety of the food groups is more sustainable and will likely provide more health benefits. 	"Be aware that this diet is unnecessarily restrictive and applying this for the long term can pose long term health consequences" Not recommended