
Australasian
Society of
Lifestyle
Medicine

Nutrition Prescription

Unit: 3.2.3

Presenter: Dr Sue Radd

Version: 1.0

About me

Dr Sue Radd

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- Clinician, researcher, author, speaker & cook
- Director Nutrition and Wellbeing Clinic
- Founder of Culinary Medicine Cookshops (DAA President's Award for Innovation 2010)
- Author of Food as Medicine: Cooking for your Best Health – awarded 'Best Health and Nutrition Cookbook in the World' (Gourmand, Paris 2016)
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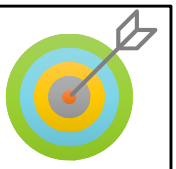
Declarations

- No conflicts of interest

Australasian Society of Lifestyle Medicine

Learning outcomes



By the end of this topic, you will be able to:

1. Identify nutrition vital signs relevant to chronic disease
2. Describe aspects of a basic dietary prescription
3. Describe practical strategies for assisting patients to achieve dietary changes

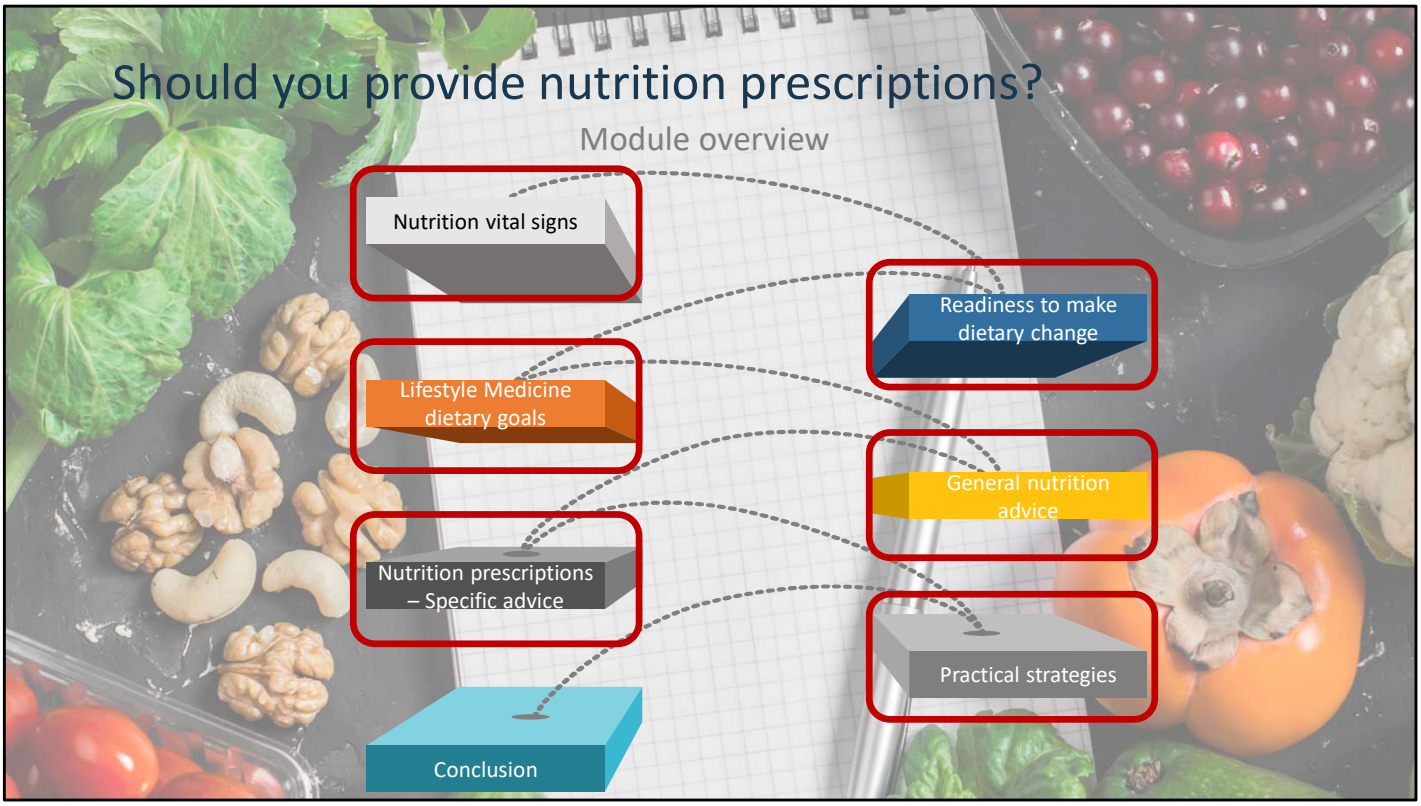
Readings

Required reading

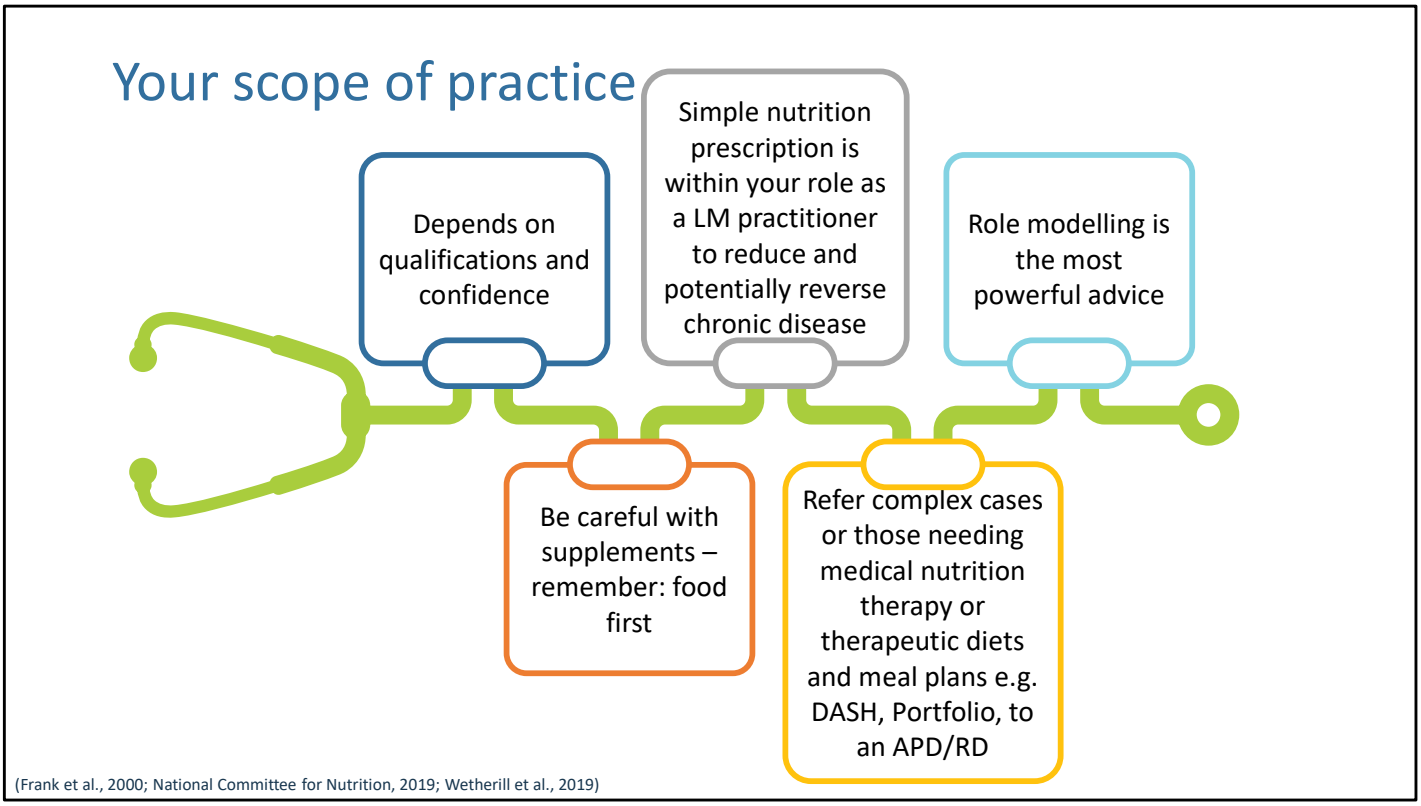
1. Nutrition prescription made simple (Wetherill et al., 2019)

Recommended activity

Keep a 3-day food diary (paper or electronic) prior to completing this module. When you have finished the module, compare your intake to the plant-based dietary pattern recommended by any official Dietary Guidelines, pyramid or plate. Write a specific nutrition prescription for yourself to improve one aspect of your diet.



- My name is Dr Sue Radd and, in this module, I'm going to tell you that you don't have to be a dietitian/nutritionist to provide simple evidence based dietary advice.
- In fact, I'm going to show you how to prepare a simple nutrition prescription whether you are a nurse, EP or GP.
- Through your regular interaction with patients you are well positioned to advise and facilitate healthy eating changes. You may identify a 'teachable moment' relevant to nutrition and be able to add further value to the care you are giving a patient within your specific area.
- In this module I will summarise the key dietary goals shared by LM Societies globally.
- I will comment on the resources you can use to provide general nutrition advice, such as the Dietary Guidelines, and some of their limitations.
- I will spend most time discussing how you can provide a simple, targeted, nutrition prescription - that's after you have first gathered some nutrition vital signs and assessed the patient's readiness to change their behaviour.
- Finally, we will end with some broad, practical strategies to encourage healthier eating and improved diet quality.
- Regardless of which discipline you belong to, as LM practitioners, our mutual goal is to prevent, better manage and even reverse chronic disease.

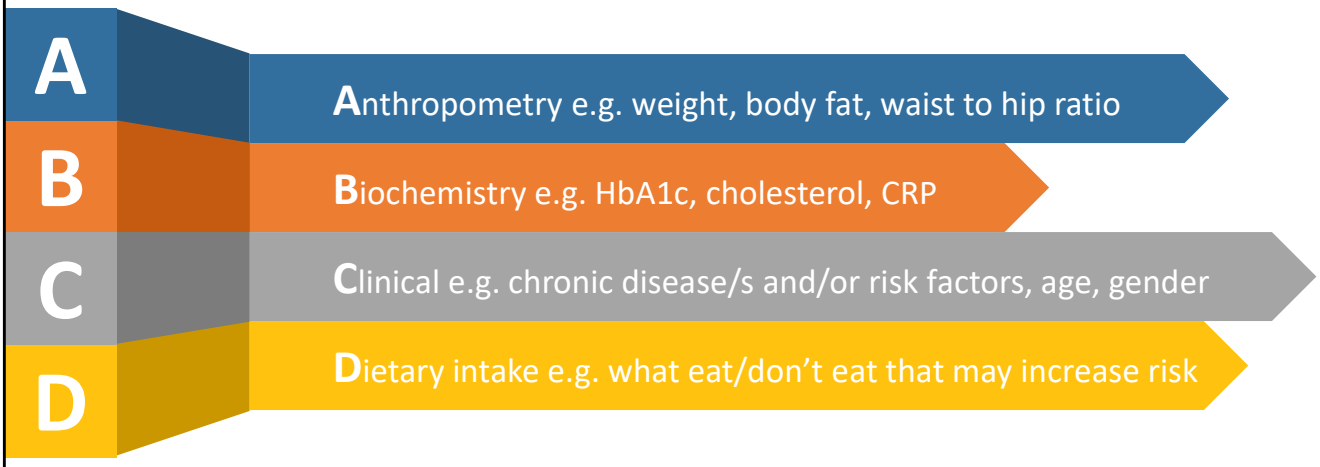


- Diet is a popular topic these days and almost everyone is providing advice, regardless of their qualifications.
- In particular, the whole 'food as medicine' or 'culinary medicine' space has taken off, and clients are interested in this type of information.
- But we've all heard of dubious advice being given to our patients e.g. clients at a gym being told to adopt very low carb diets and sold protein powders to promote rapid weight loss and achieve faster results.
- If you are not an Accredited Practicing Dietitian (APD)/Registered Dietitian (RD), you may be wondering how far you should go with advising on nutrition.
- If you provide simple food advice like meal or snack ideas, such as the examples I will give in this module, you won't be going beyond your scope of practice.
- However, what clients see you do or spot on your desk can be the most powerful advice. It can also start a conversation.
- This module will be focused on foods and the overall dietary pattern; it will not cover nutrient prescriptions. Precision Nutrition, which incorporates individual genetic and microbiome variability will also not be covered as the evidence base for that area is still evolving.
- Supplements are a difficult and evolving area, and evidence-based consensus is often lacking so you should be very careful about prescribing these unless you have further nutrition science or medical training. One reason for this is that the absorption of nutrients from supplements differs to the absorption from foods and supplements may provide harmful effects at high doses.
- Of course, anything of a more complex nature or requiring high intensity therapeutic diets should be referred to an APD/RD. Their expertise lies in detailed nutrition assessment and preparing meal plans and menus for specific conditions.

Identify nutrition vital signs relevant to chronic disease

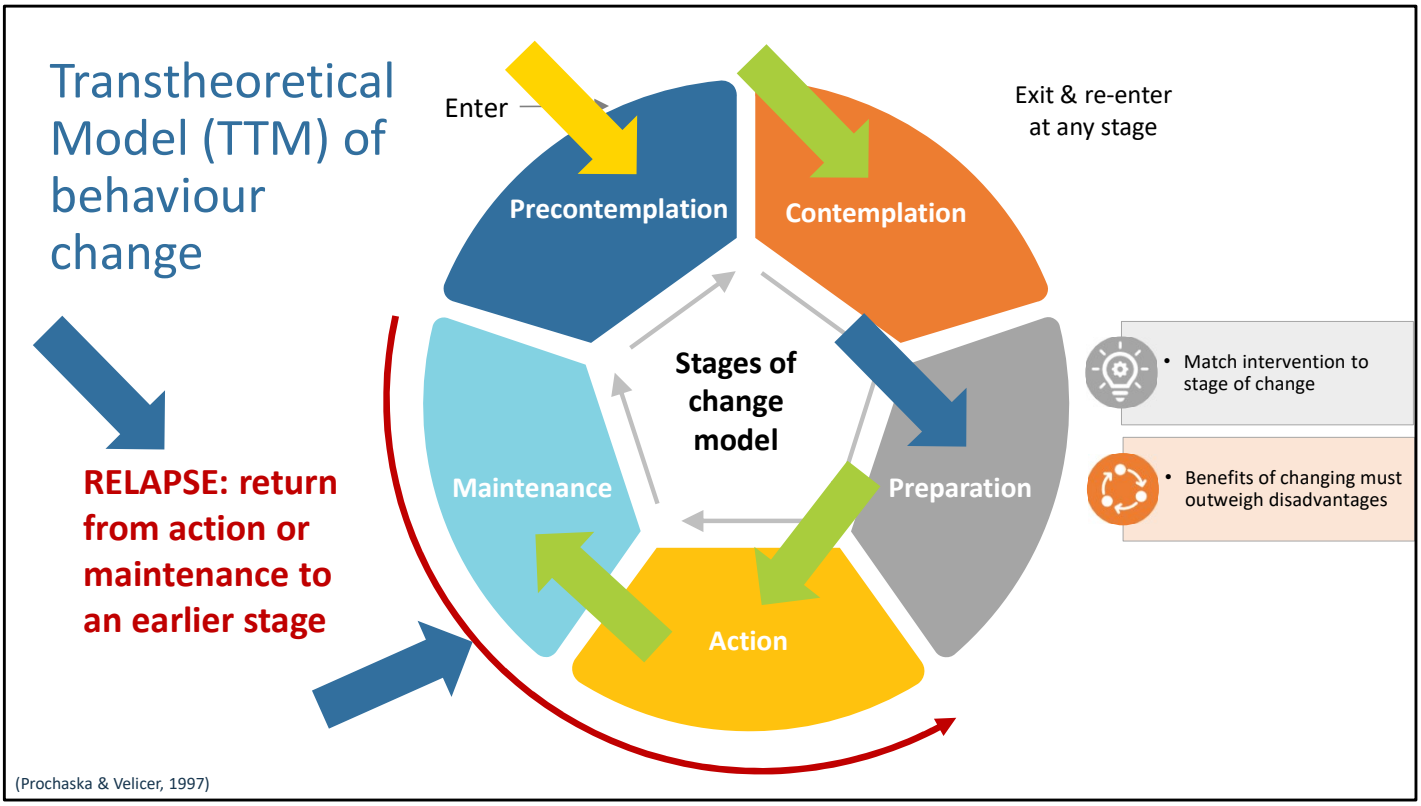
- Let’s look at our first learning objective.

Nutrition vital signs



(Heber & Li, 2017; Rippe, 2019)

- Before you can provide a nutrition prescription you need to identify one or more nutrition vital signs. Nutrition vital signs can give you a lead to initiate a nutrition prescription.
- APDs/RDs assess all of these, from A to D, but a knowledge of even one nutrition vital sign can be helpful.
- There is another module entirely devoted to nutrition assessment (module 3.2.2), which would be good background if you haven't already viewed it. It focusses on assessment of dietary intake.
- Overall, in terms of assessing diet, diet quality is now appreciated as most relevant for preventing, better managing and reversing chronic disease. Although there is an interesting new tool called DietID, which has been developed to rapidly determine diet quality, this is yet to be established as more accurate than current diet assessment methods and needs to be validated for use across various populations.
- With respect to briefly assessing a patient's intake, there is no universally agreed tool for use in the clinic.
- While there are various validated tools used for research purposes, most of these are not practical for clinicians/therapists.
- Dietitians conduct dietary assessments within the clinic using tools such as a food diary, diet history, 24 hour recall and FFQ.
- You could use any one of these to obtain a measure of dietary intake e.g. a patient may show you their food diary, using Easy Diet Diary, which displays dietary fibre intake, a global indicator of better diet quality.
- However, as research has shown that most lifestyle change can be accomplished with mild therapeutic interventions, you don't even need to assess 'whole of diet' in order to share simple, targeted food advice and help a patient improve their diet quality.



- You also need to understand the readiness of a patient to change a given behaviour.
- Various behaviour change theories have been discussed in other modules (module 2.1).
- I like the Transtheoretical Model (TTM), commonly known as the Prochaska stages of change as they were developed by Dr James Prochaska.
- Pictured here are the 5/6 stages: **Precontemplation** (not intending to make change in foreseeable future), **Contemplation** (intending to make change in next 6 months), **Preparation** (intending to make change within next month), **Action** (made changes in the past 6 months), **Maintenance** (more confident and working to prevent relapse).
- Interestingly, based on research in smokers, it's important to understand that the **Maintenance** stage can last from 6 months to 5 years.
- **Termination** (not picture) is the 6th stage where a person has achieved 100% self-efficacy and no matter how bored, depressed, stressed etc. they are they will not return to their unhealthy habit as a way of coping - as if they never acquired the habit in the first place.
- TTM is highly relevant to eating behaviour because changing what somebody eats is not just an event e.g. going from 'you don't eat nuts' to 'you do eat nuts'. It is a process, involving progress through various stages.
- The TTM enables you to work out the stage a person is up to for a given behaviour so you can match the type of intervention you provide.
- People can be at different stages for various behaviours, even related to food/their diet, and they can transition through the stages at different rates.
- If you are an Exercise Physiologist working with a patient, they may be in the **Action** or **Maintenance** stage for physical activity. But they could still be in the **Contemplation** stage for swapping their afternoon snack of potato crisps to nuts.
- The goal is to match your nutrition prescription with the patient's readiness to change stage.

Readiness to make dietary change

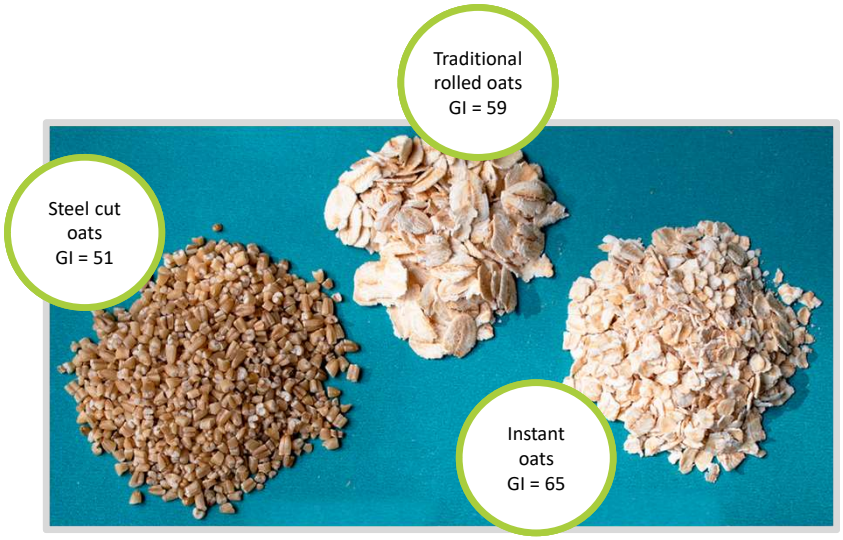
Consider the following factors:

- ❑ Social, ethnic and spiritual background
- ❑ Family structure
- ❑ Personality
- ❑ Personal goals and needs
- ❑ Existing dietary belief system
- ❑ Previous successes with dietary change
- ❑ Attitude toward behaviours
- ❑ Perceived barriers/benefits for behaviour change

- To help you determine the stage a patient is at when it comes to food/eating, you should consider their environment, preferences and perceived barriers.
- Consider the following factors
    - Social, ethnic and spiritual background e.g. peer group pressure
    - Family structure e.g. cooking for others, doesn't plan meals
    - Personality e.g. impact of emotions
    - Personal goals and needs e.g. wants to lose weight to play with grandchildren
    - Existing dietary belief system e.g. healthy diet should be gluten free
    - Previous successes with dietary change e.g. use of food diary
    - Attitude toward behaviours e.g. resistant to avoiding fast food
    - Perceived barriers/benefits for behaviour change e.g. can't cook
- Generally, when providing a nutrition prescription, a person will be most likely to adopt this if they are in the **Action** stage.
- If a patient is in the early stages of change e.g. **Precontemplation**, use motivational interviewing techniques to explore pros/cons of the change.
- If a patient is in the later stages of change e.g. **Action**, use cognitive behavior therapy (CBT) to reframe unhealthy thought patterns.
- In all stages of change use Positive Psychology.

Lifestyle Medicine dietary goals

- Unrefined, plant-based dietary pattern
- Wide variety of foods
- Limit processed foods, avoid ultra-processed foods
- Mostly intact food from e.g. steel cut oats vs instant oats
- Higher moisture, lower heat cooking methods
- Plain water as the main drink



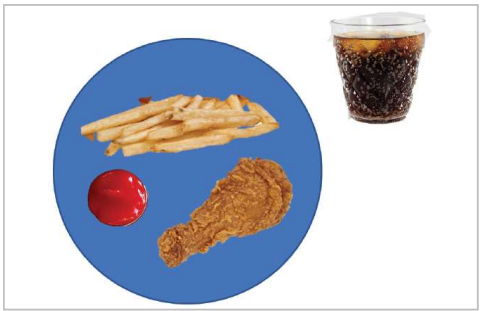
(Hauser, 2019)

- Another thing to be clear on as a LM practitioner, is the overall evidence-based position that LM Societies around the world promote with respect to diet. This evidence base has been discussed in other modules.
- In general, LM Societies would support most elements in government Dietary Guidelines, although guidelines from some countries need to be updated and they don't all rank foods within a food group according to their association with chronic disease outcomes.
- What everyone appears to agree on is that more of a plant based diet should be promoted (whether that be Mediterranean, vegan, flexitarian or pescatarian), using more intact rather than ground up forms of foods as much as possible, preferring higher moisture, lower heat cooking methods, avoiding ultra-processed foods, and encouraging water as the main drink between meals.
- Such dietary patterns will provide far more dietary fibre and phytonutrients, promote a lower GI and GL, while limiting exposure to harmful chemicals that can be formed in cooking/during food processing or have migrated from packaging e.g. AGEs, PAH's, HCA's, acrylamide, BPA etc.
- Research shows that when dietary quality is improved, portion size is also less important as it often takes care of itself.
- The visual in this slide provides you with an example of why food form matters, at least for carbohydrates. With respect to carbohydrate containing foods (regardless of their fibre content) the more intact the food form the lower the glycaemic response.

Eat a high quality plant-based diet

Why patients should focus on unrefined plant foods not calories

HIGH calorie density (500 Cal)



- 1 fried chicken drumstick
- 1 small French fries
- 1 packet ketchup
- 1/3 can cola

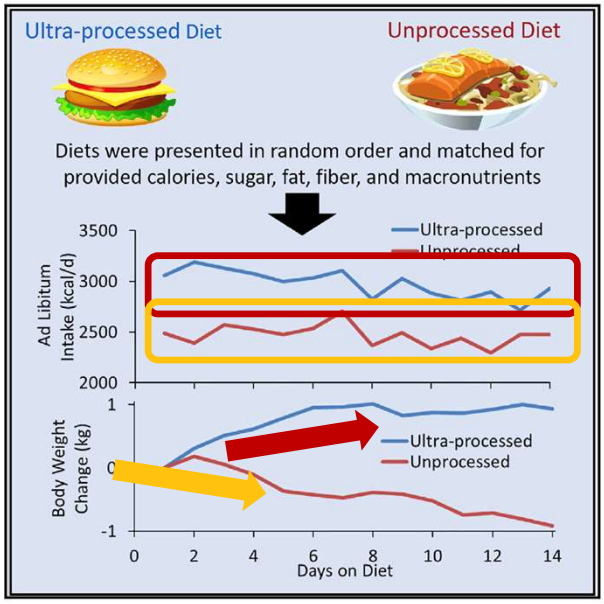
LOW calorie density (500 Cal)

- 3 bean & vegetable croquets
- ½ cup brown rice pilaf
- 1 small side salad with 1 tsp dressing
- ½ cup fresh fruit
- 1 large glass unsweetened iced tea

(Hauser, 2019, p. 31)

- As mentioned, the quality of calories counts most. If all our patients adopted an unrefined plant based dietary pattern, few would need to worry about their calorie intake.
- You can see from this illustration; you get far more food to fill up on if you choose to eat an unrefined plant-based meal (as on the right) rather than refined fast food meal (left). So you're less likely to get hungry in a couple of hours and may naturally consume less energy.
- Such visuals can be very motivating for patients.

Avoid ultra-processed foods



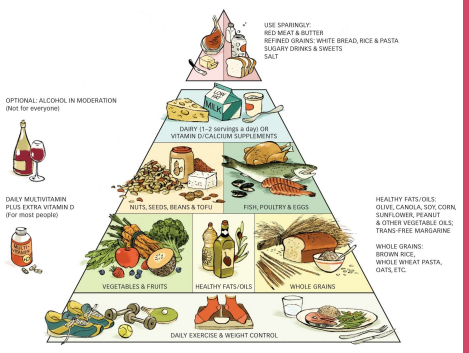
- 14-day crossover study (n=20 adults)
- Diets provided for ad lib intake
- Matched for energy, sugar, fat, fibre, macronutrients
- 2,100 kJ (500 Cal) higher intake on ultra-processed diet

(Hall et al., 2019)

- So, the previous slide related to two meals. What about a diet?
- This small crossover study shows the impact of swapping ultra-processed foods with unprocessed foods.
- It was conducted in a metabolic ward where participants were provided with three daily meals and instructed to eat as much or as little as they desired.
- What makes the study unique is that the diets presented were matched for energy, sugar, fat, fibre, and macronutrients.
- Yet, within just 14 days, we can see that participants consumed less energy (2,100 kJ/500 Cal) on the unprocessed diet.
- Weight changes were also highly correlated with energy intake.
- The advice to avoid ultra-processed foods is therefore very important because in western countries we have high rates of overweight/obesity.
- In Australia, one third of adults get their energy from discretionary foods, many of which are ultra-processed.

General nutrition advice

Australian Guide to Healthy Eating



Harvard Healthy Eating Pyramid

Whole food, plant-based plate

WFPB plate adapted from (ACLM, 2019; Government of Canada, 2019) & (Harvard TH Chan School of Public Health, 2008; NHMRC, 2017; Willett & Skerrett, 2005)

- So, what should you prescribe?
- As mentioned earlier, you can use government or NGO Dietary Guidelines, pyramids or plates to provide general advice, which can help improve diet quality. If followed more broadly, use of these resources would lead to substantial health improvements.
- However, these educational tools are not all equivalent, and some are more up to date than others.
- When I first trained as a dietitian 30 years ago, we used the 5 Food Groups to provide general nutrition advice and assess whether a diet was nutritionally adequate. The AGTHE is still mainly based on nutritional adequacy. Yet today, at least in western countries, we are not as concerned re nutrient adequacy as chronic disease.
- Mainstream Dietary Guidelines, such as those from the US, have been criticised by leading researchers at Harvard University for failing to incorporate important findings from large observational studies e.g. NHS. For example, Harvard researchers believe the recommendation for dairy intake is set too high in the US Dietary Guidelines and have pointed out the consistent association of dairy intake with prostate cancer in various cohorts.
- Many Dietary Guidelines also do not consider nutrition sustainability.

- The Brazilian Dietary Guidelines quickly became the poster child for Dietary Guidelines when they were first released in 2014 because they were food-based rather than focussing on nutrients, and highlighted the need to limit use of processed foods and avoid ultra-processed foods. Plus, these Guidelines pointed out the interdependence of healthy diets and the social and environmental sustainability of the food system.
- Dietary Guidelines from New Zealand (2015) and Canada (2019) specifically prioritise protein foods, according to evidence for chronic disease. For example, legumes, nuts, seeds and tofu are listed before eggs, poultry and red meat, which is not the case in the 2013 Australian Dietary Guidelines where lean meat and poultry are listed first whereas legumes come last.
- You can see significant weighting is given to plant-based proteins in the Canadian plate and the plate promoted by the ACLM. The picture on the right is a hybrid of these.
- While dietary Guidelines are evidence based, to appreciate the complexity of messaging in Dietary Guidelines, one needs to understand how the evidence used to inform them was rated. Current methods for assessing strength of evidence prioritise the contribution of RCTs, although it is well known that it is impossible to conduct long term trials with diet.
- In future, the tools used to rate evidence for diet and LM in general, may change. Katz et al. recently proposed a more suitable construct for rating evidence for LM called HEALM.

Describe aspects of a basic dietary prescription

- Let’s look at our second learning objective.

Nutrition prescriptions – specific advice

Use the TAF formula

- **T** – Type of food
- **A** – Amount to have
- **F** – Frequency of intake

The American College of Lifestyle Medicine recommends writing nutrition prescriptions to clarify, confirm and personalise the importance of eating behaviour change

(Wetherill et al., 2019)

- Your actual nutrition prescription should be simple. Something you can do in 5 minutes having previously gleaned nutrition vital signs and assessed the likely stage of behaviour change a patient is at.
- I prefer to use a formula that's easy to remember such as TAF. You can see this follows SMART goal principles (covered in other modules) but not to the same detail.
- There are other formulas you can use such as FITT: Frequency, Intensity, Time and Type, often used for physical activity (module 3.1.3).
- Nutrition prescriptions can be positive or negative – you may promote an increase or limit for a particular food.
- The examples of 7 specific nutrition prescription I am going to give you next, are consistent with the Dietary Guidelines but the quantities may be specific to a personal goal example or go beyond detail provided within the Guidelines if there is good observational evidence suggesting benefit and no harm.
- I will also give you examples of language I would use to target behaviour change.
- Please note – these examples, which I use in practice, are in no particular order and for some the 'T' (type of food) may relate to a whole food group while for others it may relate to a specific food, just to show you variations. For example, you could target vegetables as the T or eggplant as the T, depending on the prescription, which is based on need.

1 Nuts

- T = walnuts
- A = handful (30 g)
- F = daily

Tips: enjoy as snack, in salad, on cereal, to make savoury dishes (e.g. walnut meatballs, nut meatloaf), cakes, biscuits, slices; also use them as a paste e.g. cashew butter

Options: all nuts are beneficial e.g. almonds, Brazil, macadamia

(Radd, 2016)

- Nutrition prescription number 1.
- Just 2% of Australians eat the recommended 30g of nuts each day. The mean nut intake from a representative sample of 2011–2012 National Nutrition and Physical Activity Survey (NNPAS) was 4.6 g/d.
- Earlier on you would have assessed how often your patient eats nuts.
- You may know from your LM training that nuts can provide benefits for chronic disease e.g. CVD (endothelial function), DM (improved glucose regulation), cognition. Nut intake is also not associated with increased weight or BMI as commonly thought.
- When writing the nutrition prescription you should personalise the potential benefits for your patient.
- For example, “did you know that eating nuts at least 5 days per week can significantly lower your risk of heart attack and stroke? Nuts can also lower a high cholesterol, so they would be perfect for you (patient has an elevated cholesterol)”. Since I know that you love nuts, but have been afraid of eating them thinking they will put on weight, I wanted to give you a nutrition prescription to benefit your health. Would you like that?”
- Assuming the answer is YES you would provide a prescription, such as the one on the slide.

- Practical ideas to implement the prescription are also important.
- One example is to use walnuts instead of minced meat to make walnut ‘meatballs’ or ‘meatloaf’. Nuts are regularly used this way in one of the longevity hot spots of the world known as Blue Zones i.e. Loma Linda. The vegetarian Adventists in Loma Linda consume more nuts than non-vegetarians as they make them into a protein dish, rather than just saving them for a snack.
- Finally, giving options is important. Research shows that offering 2-3 choices improves motivation.
- You could use any nut as they are all beneficial. For example, almonds are particularly good non-dairy sources of calcium.

<u>AGTHE recommendations:</u>
Number of serves from meat and alternative group for adults = 2-3/day, depending on gender and energy requirement.
Standard serve = 30 g.

2 Extra virgin olive oil

- T = extra virgin olive oil
- A = 2 TBSP for personal consumption
- F = daily

Tips: drizzle on bread & soup, dress salads, use in cooking and baking; choose fresh oil (check harvest date); store in dark, cool cupboard

Options: other extra virgin plant oils e.g. mustard seed oil, avocado oil, although clinical evidence is lacking

(Radd, 2016)

- Nutrition prescription number 2.
- Australians consume around 1 tsp (6 ml) of total olive oil per day (not all is EVOO), based on apparent consumption estimates. This is miniscule.
- Earlier on you may have assessed the types of fats/oils your patient is using.
- You may know from your LM training that extra virgin olive oil can provide benefits for chronic disease e.g. CVD, type 2 DM, breast cancer, cognition, reduced inflammation. There is more evidence to support the use of this unsaturated oil than any other oil/fat, such as vegetable oils or margarines (which are refined and lack polyphenols and other phytonutrients). Of course, other unrefined (extra virgin) and unsaturated plant oils may also provide benefits but these need to be further studied e.g. extra virgin mustard seed oil, used traditionally in Northern India, and known to contain glucosinolates.
- When writing the nutrition prescription you should personalise the potential benefits for your patient.
- For example, “since you are keen to dampen the inflammation to benefit your arthritis, have you considered switching your fats/oils to an anti-inflammatory type?”
- Assuming the answer is YES you would provide a prescription, such as the one on the slide. You would point out that the health benefits of EVOO start with 2 TBSP

per day and that it is used to replace all other fats/oils. Even more was consumed in the traditional Mediterranean diet.

- Practical ideas to implement the prescription are also important.
- One example is to drizzle EVOO on your bread instead of using margarine/butter.
- Finally, you would give options to boost motivation.
- You could also use EVOO by drizzling it on your salad or soup.
- You may need to dispel the myth that EVOO can't be used for cooking. It was the only oil used for all types of cooking in the traditional Mediterranean diet. Recent research suggests it is also the most stable oil to use in cooking due to its high polyphenol content.

<u>AGTHE recommendations:</u>

Oils are not part of the 5 Food Groups but the advice for all types of oils/yellow edible spreads is to use small amounts.

No standard serve is provided for healthy oils. Butter and hard margarine is included in discretionary foods and an exchange (1 TBSP) is provided based on energy content (600 kJ).

3 Legumes

- T = Lima beans
- A = 1 cup (150 g), cooked
- F = 2-3 times per week

Tips: dried or canned; use for burgers, soup, salad, dip, pasta sauce, curry, dhal, cakes, slices

Options: navy beans, kidney beans, lentils, chickpeas, mung beans

(Radd, 2016)

- Nutrition prescription number 3.
- Based on secondary analysis of The Australian 2011-2012 National Nutrition and Physical Activity Survey (NNPAS), only 7.9% of adults ate legume foods on either day of the survey.
- Most of the intake by Australians from the meat and alternatives group came from red meat and poultry.
- Yet, when modelling was done for the Australian Dietary Guidelines, it was recommended legume intake should increase by 470%!
- Earlier on you would have assessed how often your patient eats legumes in comparison to meat. You might have picked up that they like baked beans, for example, but have never tried other legumes.
- You may know from your LM training that legumes can provide benefits for chronic disease e.g. CVD, type 2 DM, colon cancer, as well as being a prebiotic food to promote butyrate formation in the gut and reduce constipation.
- When writing the nutrition prescription you should personalise the potential benefits for your patient.
- For example, “you mentioned that you eat meat every day but your bowels are sluggish, which is troubling you, and that you have a strong family history of colon cancer. Can I give you a prescription that would benefit your wellbeing?”.

- Assuming the answer is YES you would provide a prescription, such as the one on the slide. You would point out that the frequency prescribed is a minimum to start with. People who eat plant based diets commonly eat legumes every day.
- Interestingly, research has found that frequency can be a greater predictor of variation in food intake than quantity (serve size). So, our goal should be to get everyone eating legumes as their 'meat' more often, rather than burdening patients to measure exactly how much legumes they eat.
- Practical ideas to implement the prescription are also important.
- One example is to use Lima beans and make your own version of baked beans. Such a dish is an ideal swap for meat, because research shows beans are very filling. They are not just 'meat' for vegetarians.
- Finally, you would give options to boost motivation.
- You could use any other type of dried white beans to make this dish e.g. white navy beans or cannellini beans.

<u>AGTHE recommendations:</u>
Legumes are listed in two food groups: meat and alternative and vegetables. They do not have their own food group.
Number of serves from meat and alternative group for adults = 2-3/day, depending on gender and energy requirement.
Number of serves from the vegetable group for adults = 5-6/day, depending on gender and energy requirement.
Standard meat alternative serve = 1 cup cooked or canned legumes or 170 g tofu.

4 Vegetables

- T = broader range of non-starchy vegetables
- A = 2 cups raw + 2 cups cooked
- F = daily

Tips: salad for lunch; cooked vegetables for dinner; create some main dishes based entirely of vegetables e.g. vegetable stew, braised green beans with tomato; pre-cut a large salad (undressed) or tray bake vegetables on the weekend and refrigerate

Options: variety of colours/types over time – fennel, bok choy, watercress, broccoli, purple cabbage, beetroot, radish, swede, okra, bitter melon

(Radd, 2016)

- Nutrition prescription number 4.
- Nine out of 10 Australians do not eat the recommended daily serves of vegetables.
- Earlier on you would have assessed how often your patient eats vegetables and, possibly, how much they consume.
- You may know from your LM training that vegetables can provide benefits for chronic disease e.g. CHD, stroke, some types of cancer such as lung and prostate and they protect against excess weight gain and obesity.
- When writing the nutrition prescription you should personalise the potential benefits for your patient.
- For example, “I notice you currently don’t seem to be eating enough vegetables and they are mostly potato chips, peas and corn. But you are keen to lose weight and prevent further gain in the longer term. Adding more vegetables to your diet can be helpful. Would you like me to give you a nutrition prescription for vegetables?”
- Assuming the answer is YES you would provide a prescription, such as the one on the slide. You would point out that boosting vegetable intake at each meal can help dilute the calories of their overall diet. And the including some in raw form is also beneficial.
- Practical ideas to implement the prescription are also important.

- One example is to cook a vegetable stew, which can be made delicious by using EVOO. The picture you see is an example of a Mediterranean dish where vegetables are the star rather than a side dish. In the Mediterranean, simple vegetable dishes using what's in season are often eaten as the main course. Eating more meals where vegetables are the main course has the added advantage of diluting protein in the diet (particularly sulphur amino acids), which is associated with a longer lifespan and reduced cardiometabolic diseases.
- Finally, you would give options to boost motivation.
- You could use any type of vegetables for this dish e.g. eggplant, capsicum, zucchini, potato, carrot, green beans. Whatever is in the bottom of your fridge.

<u>AGTHE recommendations:</u>
Number of serves for adults = 5-6/day, depending on gender and energy requirement.
Standard serve = ½ cup (75 g) cooked or 1 cup green leafy/raw salad.

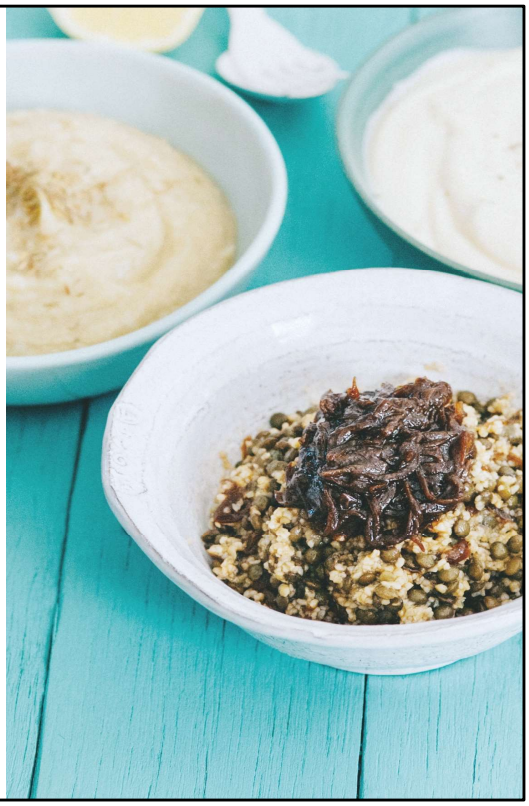
5 Wholegrains

- T = coarse bulgur wheat
- A = ½ cup cooked
- F = daily

Tips: swap for white rice e.g. pilaf, risotto; cook wholegrain blends in rice cooker; stir through soup, add to burger mix, salads & stuffed vegetables; team up with legumes for savoury dish; team up with dried fruit & crushed nuts for dessert

Options: freekeh, pearl barley, rye, corn, millet, buckwheat, quinoa, brown/red/wild rice, spelt, kamut, steel cut oats or traditional rolled oats, wholegrain bread, certain breakfast cereals such as muesli

(Radd, 2016)



- Nutrition prescription number 5.
- A 2014 market research study commissioned by the GLNC found that 70% of Australians were not meeting the 3 or more serves of wholegrain foods recommended each day.
- Earlier on you would have assessed how often your patient eats wholegrains or wholegrain foods.
- You may know from your LM training that wholegrains (as compared to refined grains) can provide benefits for chronic disease e.g. CVD, type 2 DM, colorectal cancer and prevent weight gain.
- When writing the nutrition prescription you should personalise the potential benefits for your patient.
- For example, “from what you have shared with me, you seem to be missing out on the health benefits of wholegrains. Wholegrains are naturally high in fibre and provide some unique phytonutrients to feed the good bacteria that live in your bowel. Choosing mostly wholegrains, as opposed to white/refined grain foods, has also been linked with protection from bowel cancer, which you mentioned you have a family history of. I am aware that you are also now having regular colonoscopies to check for polyps, which can be a precursor to bowel cancer. Can I share a nutrition prescription with you?”

- Assuming the answer is YES you would provide a prescription, such as the one on the slide. You would point out that wholegrains are much more than just grainy bread and brown rice. There are many types.
- Practical ideas to implement the prescription are also important.
- One example is to use coarse bulgur wheat to make a pilaf instead of using rice. In traditional societies, bulgur is combined with lentils or eggplant and interesting spices are added to make it very tasty. Bulgur wheat is cracked whole wheat. You may have seen the fine bulgur used in tabbouleh. The coarse type is the one to get if you want a substitute for rice.
- Finally, you would give options to boost motivation.
- You could use other intact/coarsely cracked/rolled grains to boost your wholegrain intake, such as freekeh, barley or red rice. The trick for rice, in particular, is to cook it in the minimum required water e.g. by absorption in a rice cooker, until al dente. This will reduce its GI.
- Cooking carbohydrate foods, such as rice or potato, and then cooling them in the fridge before consumption also creates resistant starch, which drops the GI.

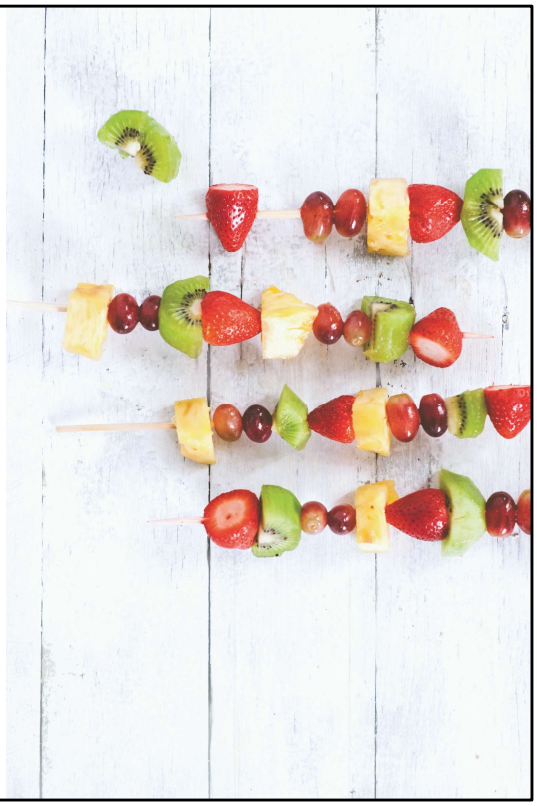
<u>AGTHE recommendations:</u>
Recommended number of grain serves for adults = 3-6/day, depending on gender and energy requirement.
Standard serve = ½ cup cooked grains or 1 slice bread or 1/2 cup cooked porridge.

6 Fruit

- T = fresh berries
- A = 1 punnet
- F = daily

Tips: original snack and dessert choice; top breakfast porridge; freeze in summer

Options: variety of fresh fruit in season; dried fruit



(Radd, 2016)

- Nutrition prescription number 6.
- Almost 4 in 5 Australian adults do not eat the recommended daily serves of fruit.
- Earlier on you would have assessed how often your patient eats fruit.
- You may know from your LM training that fruit can provide benefits for chronic disease e.g. lower blood pressure/stroke risk, CHD, weight gain/obesity, oral cancer.
- When writing the nutrition prescription you should personalise the potential benefits for your patient.
- For example, “I’m aware that your mother had a stroke and I note your blood pressure is not optimally controlled. From what you have told me, you only seem to eat 1 piece of fruit per day as you are concerned it contains sugar. Yet people with high blood pressure can benefit by eating 4-5 fruits per day. A higher fruit intake is also linked with a lower stroke risk. Can I give you a nutrition prescription for fruit?”
- Assuming the answer is YES you would provide a prescription, such as the one on the slide. You would point out that adding 1 punnet of berries each day would boost their intake to at least two fruit serves per day. Also, you would reassure that eating more fruit isn’t linked with a higher risk of type 2 diabetes as the sugar is present in the food matrix with fibre. Based on a large study in China with half a

million people tracked for 7 years, a higher fruit intake was linked with a lower risk of diabetes, and, among those with diabetes, a lower risk of diabetic complications.

- Practical ideas to implement the prescription are also important.
- One example is to enjoy berries as dessert after the evening meal.
- Finally, you would give options to boost motivation.
- You could use other types of fruit and it would be a good idea to try new types over time, such as persimmon or pomegranate.

<u>AGTHE recommendations:</u>
Recommended number of serves for adults = 2/day.
Standard serve = 1 medium (150 g) or 2 small fruits or 1 cup diced fruit.

7 Water

- T = plain water
- A = minimum 5 cups
- F = daily

Tips: use water bottles or jug to measure; drink slightly chilled; add mint or squeeze of lemon to flavour

Options: plain tap or filtered water; bottle water when access to tap water is limited; avoid flavoured waters

(Radd, 2016)

- Nutrition prescription number 7.
- On average, Australians consume about 1 litre plain water per day (Australian Health Survey: Consumption of Food Groups from the Australian Dietary Guidelines, 2011-12).
- Earlier on you would have assessed how much water your patient is drinking.
- You may know from your LM training that plain water may provide benefits for chronic disease e.g. fatal CHD, bladder cancer; as well as reduce the risk of kidney stones, UTIs, weight gain and improve memory function. While prioritising water intake, most Dietary Guidelines to date, give recommendations for total fluid intake.
- When writing the nutrition prescription you should personalise the potential benefits for your patient.
- For example, “you mentioned that you are vulnerable to kidney stones and urinary tract infections. Also, that you drink very little plain water and mainly have tea and coffee throughout the day. Drinking more plain water each day could lower your risk of these problems. Getting enough water has also been linked with a reduced risk of bladder cancer and heart attack. Would you be interested in a nutrition prescription that could help you?
- Assuming the answer is YES you would provide a prescription, such as the one on

the slide. You would point out that drinking 5 cups of pure water per day at the expense of other fluids appears to provide unique benefits. Other beverages do not provide the same effects, which could be because they contain sugar, caffeine, food acids or other additives.

- Practical ideas to implement the prescription are also important.
- One example is to measure this amount in water bottles, which you can carry with you to spread the intake over the day. Also, to add a squeeze of lemon to improve palatability.
- Finally, you would give options to boost motivation.
- You could use filtered water as this usually tastes much better.

<u>AGTHE recommendations:</u>

Water is not included in the 5 Food Groups. There is little mention of it specifically in the AGTHE.

While the Australian Dietary Guidelines advise that it is preferable to meet most fluid needs by drinking plain water, they have mainly assessed evidence for other fluids e.g. tea, coffee, and list that evidence under Evidence Statements for water.

Describe practical strategies for assisting patients to achieve dietary changes

- Finally, let's look at our third learning objective.

Practical strategies

- Plan your time to make food and eating important in your life
- Collaborate with the family to share food responsibility
- Be realistic: plan 3 main meals per week
- Develop and value cooking skills
- Use time saving gadgets: pressure cooker, slow cooker, rice cooker
- Cook once, eat twice – use your freezer!
- Cut up large bowl of salad on weekend and store (undressed) in fridge
- Track your food intake

(Kahan & Manson, 2017; La Puma, 2020; Parks & Polak, 2019; Radd, 2016)

- We should highlight the pleasure of eating healthy foods, rather than stressing the avoidance of unhealthy choices.
- Healthy eating is an excellent investment of time – a form of health insurance – so it deserves proper attention.
- Modern families should share in the acquisition, preparation, cooking and arrangements before and after meals since everyone is busy.
- Most people don't cook every night and can be overwhelmed by having to plan all their meals. Planning and cooking 3 main meals each week can be realistic, even for the time poor.
- Studies show that when people cook more and eat at home, they consume healthier diets. Some people also find cooking an ideal time to de-stress from the day's problems.
- But cooking skills are no longer being shared between generations or taught at school so it's important we develop them ourselves and/or value those who cook for us.
- Gadgets can make cooking healthy foods easier and faster e.g. a pressure cooker can shave 75% of the cooking time for legumes.
- When you cook, double recipes where practicable. For an extra 20% of time spent chopping you can get double the amount of food.
- Weekends (or days off) are perfect times to prep for a busy week ahead e.g. cut up a large bowl of salad to store undressed in the fridge for use in sandwiches and with meals.
- Finally, it's important to be accountable. Tracking food intake improves compliance with healthy eating. Leverage tools such as a food diary e.g. Easy Diet Diary.

- What you have just learned is that nutrition signs can give clues for a prescription.
- But you should also first assess a patient's readiness to change dietary behaviour.
- In a nutshell, we should be recommending an unrefined plant-based diet, avoidance of ultra-processed foods and water as the main drink.
- You can use TAF to provide simple food-based nutrition prescriptions.
- Planning food intake, cooking more often, collaborating with the family to spread the load for food preparation and self-monitoring intake are keys to success.
- Finally, progress not perfection is the goal – so always follow up with your patient and adjust their nutrition prescription, as required.

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