

Research Prospectus

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Integrated health mobile text messaging people with *Type 2 Diabetes Mellitus* for 12 months

PURPOSE

1. Determine if integrated health mobile text messages (unidirectional), including medical, diet, exercises, and psychological support follow-up people with Type 2 diabetes for 12 months, can improve their glycaemic control at 6 and 12 months.
2. Determine if participants' lipid profiles, blood pressure, and weight status (BMI) can also be improved at 6 and 12 months

HYPOTHESIZE

We hypothesize that there will be improved HbA1c, lipid profiles, blood pressure, and weight status (BMI) in 6 months and a further improvement in 12 months; there will be a high acceptance rate or high satisfaction levels about this research from participants.

BACKGROUND

The rapidly increasing prevalence of diabetes and related microvascular and macrovascular complications are known to all health professionals. Diabetes and diabetes-related kidney disease cause around 2 million deaths around the world.¹ The predicted number of diabetes cases between 20 to 79 years by 2040 is around 783 million from 537 million in 2021.¹ Type 2 diabetes is the most common type, which occurs in 95% of all diabetes.² Diabetes is also one of the challenges in Australia's health system. Up to 2020, more than 5% of the population has had diabetes, both diagnosed or undiagnosed.³ There is a trend that the age of Type 2 diabetes has been shifted towards younger age groups from the average age of 45 years old.³ There were around 1.3 million newly diagnosed Type 2 diabetes between 2000 and 2020.⁴ In 2018-19, it cost around \$3.0 billion or more than 2% of total medical costs in the Australian health system, and Type 2 diabetes represented about 60% of total costs.⁴ During COVID-19, diabetes is one of the pre-existing chronic conditions that contributed to around 15% of total COVID resulted in deaths.⁴

In regard to current practices in Australia, patient-centered care and multidisciplinary team care approach have been well-adapted and implemented in recent decades. General practitioners play central roles in diagnosing, educating, treating, and monitoring Type 2 diabetes and its associated complications and coordinating care among all health professionals. One of the Government's initiatives is Medicare subsidised Diabetes Annual Cycle of Care, where patients receive care for a whole spectrum of diabetes management, from regular blood tests to foot check-ups and wound care. GP management plan will then refer patients to one or several diabetes-related allied health professionals, including diabetes educators, dietitians, physiotherapists, and podiatrists, for further assessment and management through Enhanced Primary Care for a maximum of five Medicare subsidised visits in a calendar year. Medicare also subsidises other allied health services, including optometrists and psychologists, through different initiatives or plans. Other support services include free community and online diabetes services offered by pharmacies and non-profit Diabetes Australia. The positive outcome of this team-collaborative approach to diabetes care which promotes patients centered active engagement in the whole process has further been strengthened by recent systematic reviews. This has further urged more policymakers to make changes in the health system of the countries.^{5,6}

Despite the existing healthcare services for Type 2 diabetes patients, due to the progressive nature of the disease and the complexity of medical and lifestyle management, it still requires additional and ongoing support from a team approach. Future strategies will need to be more innovative and flexible in managing this disease. In this ever-changing and rapidly evolving world, COVID-19 pandemic has demonstrated this to all of us. No doubt, more effective, accessible, easy use, and low costs support services are in urgent demand. It is pleasing to see more evidence emerging from recent years that prove some innovative approaches can become adjuncts to conventional health care. This includes the telemedicine that emerged during COVID-19 pandemic period⁷ and smartphone applications;⁸ the active involvement of community pharmacies/pharmacists⁹ and endocrinologists have also shown some positive outcomes of Type 2 diabetes management for patients.¹⁰

In addition to that, there is emerging evidence showing positive outcomes of mobile text messaging to people with Type 2 diabetes. For example, a **0.38% reduction of HbA1c** in a recent systematic review/meta-analysis is one of the significant ones.¹¹ This adjunct support has also been mentioned in general practitioners management guidelines for Type 2 diabetes.¹² However, the mobile text messaging support program is still early. A few limitations or gaps of existing studies caught our attention. First, most text messages are over generalised or less specific and have a mono/consistent frequency of messaging, which raises the question of whether participants can have sufficient time to digest the text information, make changes, and maintain new behaviours. Second, there is the sudden loss of support from receiving messages from 4 times per week to none after 6 months. Third, a less multidisciplinary team approach to provide broader perspectives and expertise in formulating more effective/tailored text messages for participants, and those studies which demonstrate good outcomes usually have an intervention period of 6 months. Thus, the effectiveness of longer duration remains to be determined. Therefore, further well-designed studies with more effective and integrated text messages are needed, and this has caught our attention and interest to initiate this research project.

MATERIALS & METHODS

This is a randomised control trial study design with a target sample size of 150-200 (75-100 for each control and intervention group).

Inclusion criteria
<i>Type 2 diabetes mellitus</i>
<i>diet control or take oral hypoglycaemics (single, dual, or triple) at a stable dose, medically stable</i>
<i>age 18-70 years old, a wide range of ethnic backgrounds</i>
<i>fluent in English</i>
<i>have mobile access to SMS text messages</i>
<i>exercise tolerant (nil restriction) note: exercise may need to be ceased when in particular medical conditions/operation</i>

Exclusion criteria
Type 1 diabetes, Type 2 diabetes (uses insulin), pre-diabetes, gestational diabetes, and other forms of diabetes
multiple comorbidities (CKD, CHF & other advanced/severe/unstable CVDs)
receive chemo/radiotherapies, receive palliative care
planning for major surgery or medically unstable
unstable diabetes medication (initial adjustment period after newly diagnosed DM)
polypharmacy of regular medications or drugs interact with some nutrients e.g. <i>warfarin, K+ sparing, ACEi</i>
exercises restriction (poor exercise tolerance, motor dysfunction, MI 4 weeks before the study, cerebrovascular diseases, severe osteoporosis, other potential conditions, if unsure - will need GP to conduct a pre-exercise assessment)
limited English proficiency (reading & speaking)
age < 18 or > 70
planning for pregnancy, pregnancy
special dietary needs e.g. gluten-free diet, Low FODMAP diet
on any weight loss program
unstable psychological states/mental illness

Recruitment will be taken place in Sydney, Melbourne, and Adelaide in Australia from medical centres, community pharmacies, and hospitals. Research flyers or posters will be distributed and promoted in those places. In addition, they will be randomly allocated into control or intervention groups using online software.¹³ In the control group, participants will receive usual medical and lifestyle interventions from their health professionals. In contrast, other participants will receive mobile text health messages in the intervention group, including medical, diet, exercise, and psychological aspects of the messages at different frequencies of the week throughout the whole 12 months intervention period.

Semi-tailored text messages

Exercise advice is based on participants' age <65, >65 years old, while dietary advice is tailored based on age <65, >65 years old and social status (lives with family or lives alone). Regarding the frequency of sending text messages to participants, we looked at previous similar studies which consistently sent messages to participants a few times a week throughout the entire intervention period. Although some studies have achieved positive outcomes, our strategy is to have variations in the frequency of sending text messages.

This will give participants adequate time to comprehend and digest information, implement or make changes to their lifestyles, and maintain their new behaviours. We will then gradually reduce the frequencies in the last stage of intervention which aims to help them wean off the support to achieve effective self-management.

Text messages will be sent via automated computerised text message management system in **three stages** of the intervention period.

	Month	Aim	Type of advice
Stage 1	0-3 months	intensive learning period increase participants' awareness of the importance of managing diabetes from all aspects increase their motivations	General & specific advice
Stage 2	3-9 months	active working and changing period	More specific or tailored advice/strategies e.g healthy recipes, exercise strategies, medication adherence
Stage 3	9-12 months	Maintenance period help participants to be fully confident/independent in self-management of their DM	emphasize the most important aspects gradually reduce the frequency of text messaging

BASELINE & OUTCOME MEASUREMENTS

	QUANTITATIVE	QUALITATIVE
Pre-study & trial week	HbA1c (primary) Lipids, blood pressure, weight/BMI (secondary)	SMS Survey for participants re: understanding of the text messages – trial for 1 week
Monthly		Exercises SMS survey – refer to text messages content form
6 months	HbA1c (primary) Lipids, blood pressure, weight/BMI (secondary) Check any changes in medical conditions, and medications against selection criteria & make adjustments.	SMS survey for participants: understanding & overall satisfaction of text messages
12 months	HbA1c (primary) Lipids, blood pressure, weight/BMI (secondary)	Participants satisfaction/acceptance comprehensive survey (paper) in all aspects – medical, diet, exercises, counselling, etc. <i>Notes: WHOQOL-100 (a survey about participants' quality of life, and health conditions after doing exercises</i>

Note: target HbA1c < 7% and <6.5 can reduce complications, each 1% HbA1c reduction reduces 14% of myocardial infarction and 37% for microvascular complications.¹

Statistical analysis: SPSS software+/- Microsoft Excel

Consent from Ethics Committee: required, participants consent form needs to be done by us

Budget: small costs of purchasing gifts (\$10-15 Australian dollars) for participants who complete the whole duration of 12 months research period and complete all required outcome measurements

DISCUSSION

It is expected that a lower % of HbA1c from the intervention group compare to the control group will be achieved after six and twelve months. This will reduce the risk of developing macrovascular and microvascular complications, thus, improve patients' quality of life by reducing their mortality and morbidity rates. Secondary outcome measurements, including lipids, blood pressure, and weight status, are also expected to be improved, reducing the risks of developing cardiovascular diseases. A few recent studies indicate some improvement of lipids, blood pressure, and weight status/BMI from text messaging to patients with CHD¹⁵ and how digital technology can improve not only HbA1c but also Triglyceride levels from a most recent RCT study.¹⁶ Furthermore, it reduces a country's costs, resources, and burdens to their health care systems in managing Type 2 diabetes and its associated complications. Furthermore, it is expected that participants will be highly satisfied with this text messaging service.

In terms of the practicality of this research in Australia, this accessible, low costs and effective/integrated support service can be readily adapted in a primary healthcare setting where administrative staff or practices nurses can implement this among their Type 2 diabetes patients. This can also become an essential part of diabetes support service for people living in remote areas of Australia¹⁷. Those countries lacking multidisciplinary health care and low subsidising health care services can also benefit from this. For those healthcare systems already using text health messaging support services as an adjunct to their conventional service. These well-refined and integrated health text messages can guide them to develop a more advanced version later on.

Limitations: This study only focuses on people with Type 2 diabetes mellitus with quite a few exclusion criteria. People with limited English language abilities are excluded. Unfortunately, often there is a high prevalence of Type 2 diabetes among those people. Diabetes patients with more or severe complications such as chronic kidney diseases, congestive heart failure, and people with other advanced/severe/unstable cardiovascular diseases are also excluded due to their complexities and differences in lifestyle interventions compared to other Type 2 diabetes patients. Thus, future studies specifically designed for these groups are needed.

REFERENCES

Conduct a complete literature search on PubMed and list relevant studies using the following keywords: mobile text messages for type 2 diabetes, mobile SMS messages and type 2 diabetes, HbA1c type 2 diabetes complications

Vancouver referencing system will be used.

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OUM research committee

Appendix

Mobile Text Messages Follow Up People with Type 2 Diabetes for 12 months

Text messages contents

Medical aspects of text messages (done by Li Li Dai – MD 2nd year, Accredited Practising Dietitian)

Purpose/title	Text messages	References
Defining type 2 diabetes & role of insulin	Dear participant, type 2 diabetes is the most common diabetes where there is too much glucose in the blood. When you eat food that contain carbohydrates e.g. bread, rice, fruit, the glucose or sugar can only enter the body's cell when the 'doors' are opened by enough insulin (a hormone produced by your pancreas). Unfortunately, due to your condition, your insulin's level has been reduced or not working well, so it takes longer for carbohydrate foods become energy to meet your body's needs, just like your car needs petrol. So the glucose stays in the blood longer which results in high blood glucose levels.	Professional knowledge
Causes of Type 2 diabetes/Risk of developing type 2 diabetes - age, ethnic groups, fmhx, weight, lifestyles, etc	Dear participant, we understand it is frustrated that you have been diagnosed with type 2 diabetes and you felt like you had not done anything wrong. Unfortunately, if anyone in your family have type 2 diabetes, high blood pressure, overweight, physically inactive, not eating a healthy diet and having the classic 'apple shape' body (extra weight is carried around the waist), then you are more likely to develop type 2 diabetes.	https://www.diabetesaustralia.com.au/about-diabetes/type-2-diabetes/
Distinguish between type 1, 2 diabetes	Dear participants, you may wonder what the difference between type 1 and type 2 diabetes is. Although, we still don't know the exact cause of type 1 diabetes, we know it can be caused by a combination factor of genetic and environment (infection or stress) and unfortunately it cannot be prevented. Both types are serious and can lead to complications if not well managed. Diabetes can reduce peoples' quality of life and their life expectancies.	https://www.diabetesaustralia.com.au/about-diabetes/what-is-diabetes/?gclid=EAIaIQobChMIx_zpp9uC_QIVwjUrCh1kmQKbEAAYASAAEgLS2_D_BwE
Diagnosing type 2 diabetes - diagnosing tests & how to interpret the results	Dear participant, there are 3 common blood tests to diagnose diabetes by your GP. 1. Glycated haemoglobin (HbA1c): non-fasting test measures your average blood glucose over the last 2-3 months. 2. Fasting blood glucose: measures how much glucose is in your bloodstream at a certain time of day without eating for 8 hours. 3. Oral glucose tolerance test (OGTT) combines a fasting and a non-fasting blood glucose test. After the fasting blood test, you will take a very sweet drink and blood glucose will be tested at 1 and 2 hours.	https://www.diabetesaustralia.com.au/about-diabetes/what-is-diabetes/ GP guidelines page 9

[https://
www.racgp.org.au/
getattachment/
41fee8dc-7f97-4f87-
9d90-
b7af337af778/
Management-of-type-
2-diabetes-A-
handbook-for-
general-practice.aspx](https://www.racgp.org.au/getattachment/41fee8dc-7f97-4f87-9d90-b7af337af778/Management-of-type-2-diabetes-A-handbook-for-general-practice.aspx)

[https://
staging.diabetesaustra
lia.com.au/blog/
hba1c-blood-glucose-
testing/](https://staging.diabetesaustralia.com.au/blog/hba1c-blood-glucose-testing/)

Dear participants, HbA1c is not only used as a diagnose test for diabetes, it uses as an evaluation of your blood glucose level over the past 2-3 months

[https://
www.racgp.org.au/
getattachment/
41fee8dc-7f97-4f87-
9d90-
b7af337af778/
Management-of-type-
2-diabetes-A-
handbook-for-
general-practice.aspx](https://www.racgp.org.au/getattachment/41fee8dc-7f97-4f87-9d90-b7af337af778/Management-of-type-2-diabetes-A-handbook-for-general-practice.aspx)

In general, HbA1c less or equal to 7% is a general target level in people with type 2 diabetes. However, the target level can be lowered to 6.5 or higher depends on your age, duration of having diabetes and other health conditions and medications you take. Please consult your GP for your tailored target level.

[b7af337af778/
Management-of-type-
2-diabetes-A-
handbook-for-
general-practice.aspx](https://www.racgp.org.au/getattachment/41fee8dc-7f97-4f87-9d90-b7af337af778/Management-of-type-2-diabetes-A-handbook-for-general-practice.aspx)

Complications of type 2 diabetes
Dear participant, as you know diabetes is a complex condition but with early diagnosis, optimal treatment and effective ongoing support and management can reduce the risks of complications in kidney, heart, foot and eyes. Thus, knowledge of how to look after yourself to minimise or even prevent complications is very important.
- macrovascular CVD
- microvascular (eye, kidney, foot)

[https://
www.diabetesaustrali
a.com.au/living-with-
diabetes/preventing-
complications/](https://www.diabetesaustralia.com.au/living-with-diabetes/preventing-complications/)

Please check the link for more details.

[https://www.diabetesaustralia.com.au/living-with-diabetes/preventing-
complications/](https://www.diabetesaustralia.com.au/living-with-diabetes/preventing-complications/)

Management of type 2 diabetes
Dear participant, it is fortunate that we have an advanced health care system in Australia. People like you who have type 2 diabetes are the centre of the care, and you are supported by a team of healthcare professionals. As a health professional, we will assess your clinical signs and symptoms, we strive to understand your emotional needs, preferences, expectations and social context.
- importance of person-centred care approach
- importance of multidisciplinary care approach
Accredited practising dietitian
Aboriginal health worker

[https://
www.racgp.org.au/
getattachment/
41fee8dc-7f97-4f87-
9d90-
b7af337af778/
Management-of-type-
2-diabetes-A-
handbook-for-
general-practice.aspx](https://www.racgp.org.au/getattachment/41fee8dc-7f97-4f87-9d90-b7af337af778/Management-of-type-2-diabetes-A-handbook-for-general-practice.aspx)

- lifestyle management (diet, exercises, psychological support)
 - medical management (common medications, insulin)

Diabetes nurse practitioner
 Credentialed diabetes educator
 Dentist
 Podiatrist
 Accredited exercise physiologist
 Ophthalmologist/optometrist
 Psychologist
 Endocrinologist
 Pharmacist
 Social worker
 Aboriginal health worker

Role of some health professional in multidisciplinary care

Role of dietitian

Dear participants, as you know healthy eating plays a very important role in your diabetes management. An accredited practising dietitian can help you to make healthy food choices tailored to your specific needs or lifestyles.

<https://www.diabetesaustralia.com.au/blog/getting-to-know-your-healthcare-professional-dietitian/>

<https://dietitiansaustralia.org.au/>

<https://www.diabetesaustralia.com.au/blog/getting-to-know-your-healthcare-professional-dietitian/>

<https://dietitiansaustralia.org.au/>

Role of a diabetes educator

Dear participants, we understand sometimes it can be overwhelming to manage diabetes. Don't worry, a credentialed diabetes educator can help you manage your diabetes effectively and prevent complications.

<https://www.diabetesaustralia.com.au/blog/diabetes-educators-and-you/>

<https://www.adea.com.au/>

<https://www.diabetesaustralia.com.au/blog/diabetes-educators-and-you/>

<https://www.adea.com.au/>

Role of a podiatrist

Dear participants, as you know one of the reasons to manage diabetes well is to prevent complications. A podiatrist can help you to look after your foot, thus, reduce risk of foot ulcers and prevent amputations in severe cases.

<https://www.diabetesaustralia.com.au/living-with-diabetes/preventing-complications/foot-care/>

<https://www.podiatry.org.au/>

<https://www.diabetesaustralia.com.au/living-with-diabetes/preventing-complications/foot-care/>

<https://www.podiatry.org.au/>

Role of an optometrist

Dear participants, one of the serious complications of poorly controlled diabetes is loss of part of all of sight. Thus, it is important to have regular visits to your optometrist for diabetes eye checks.

<https://www.diabetesaustralia.com.au/living-with-diabetes/preventing-complications/eye-health/>

Local community optometrist can assist you.

Dear participants, as you know exercises are important in your diabetes management. An accredited exercise physiologist can help you to design an exercise program tailored to your needs.

<https://www.diabetesaustralia.com.au/living-with-diabetes/exercise/>

<https://www.essa.org.au/>

<https://www.diabetesaustralia.com.au/living-with-diabetes/preventing-complications/eye-health/>

<https://www.diabetesaustralia.com.au/living-with-diabetes/exercise/>

<https://www.essa.org.au/>

Medical subsidized services

Dear participants, an 'Annual Cycle of Care' managed by your GP is a checklist designed to help you and your healthcare team keep your diabetes on track and reduce the risk of diabetes-related complications. It is strongly recommended that regular visits with your GP and other diabetes healthcare team will allow you to identify any problems early and make the best management plans and treatment for you. Please simply click the link below for further information.

https://www.youtube.com/watch?time_continue=25&v=4jSf7dqEEiQ&embeds_euri=https%3A%2F%2Fwww.diabetesaustralia.com.au%2F&source_ve_path=MTM5MTE3&feature=emb_logo

https://www.youtube.com/watch?time_continue=25&v=4jSf7dqEEiQ&embeds_euri=https%3A%2F%2Fwww.diabetesaustralia.com.au%2F&source_ve_path=MTM5MTE3&feature=emb_logo

Medicare subsidised service

Dear participants

A GP Management Plan (GPMP) is a plan of action you have agreed with your GP. It helps people like you with chronic medical conditions. This plan:

- identifies your health and care needs;
- sets out the services to be provided by your GP; and
- lists the actions you can take to help manage your condition.

Team Care Arrangements (TCAs) is managed by your GP and involved other health professionals for people who like you have a chronic medical condition. At least 2 other health professionals

<https://www1.health.gov.au/internet/main/publishing.nsf/Content/mbsprimarycare-chronicdisease-pdf-infosheet>

referred by your GP to provide you with ongoing treatment. Your GP will regularly review this plan as it is an important part of cycle where you and your GP check your progression to meet your health goals and make changes it is needed.

Dear participants, if you have both a GPMP and TCAs prepared for you by your GP, you may be eligible for Medicare rebates for specific individual allied health services e.g. podiatrist, dietitian, diabetes educators, physiotherapist that your GP has identified as part of your care. The need for these services must be directly related to your chronic medical condition. For people like you who have type 2 diabetes and your GP has prepared a GPMP, you can also be referred for certain allied health services provided in a group setting, such as podiatrist, dietitian, diabetes educator.

Glucose monitoring (self monitoring)

Dear participants, since each person living with diabetes is different due to your age, duration of having diabetes, medication and other health conditions you have, your GP or specialist will set target blood glucose levels that are right for you. The information below is a general guide for target blood glucose levels before and after meals. Preprandial (before meals) blood glucose: 4-7 mmol/L Postprandial (after meals) blood glucose: 5-10 mmol/L. Please simply click the link below for information regarding glucose monitoring.

<https://www.ndss.com.au/living-with-diabetes/managing-diabetes/blood-glucose-monitoring/>

GP guidelines

Diabetes Australia
(link)

<https://www.ndss.com.au/living-with-diabetes/managing-diabetes/blood-glucose-monitoring/>
can add this link – for a video

[https://www.ndss.com.au/about-diabetes/resources/find-a-resource/blood-glucose-monitoring-type2-diabetes/webinar – 40 mins](https://www.ndss.com.au/about-diabetes/resources/find-a-resource/blood-glucose-monitoring-type2-diabetes/webinar-40-mins)

Hypo prevention and management

Dear participants, while most of the time people with Type 2 diabetes like you try to lower your blood glucose level, however, if the levels go too low (usually below 4 mmol/L) or we called hypoglycaemia (hypo). It can be caused by missing a meal, not eating enough carbohydrates for a given dose of insulin, unplanned physical activity, strenuous exercise, drinking alcohol and some medications.

<https://www.diabetesaustralia.com.au/managing-diabetes/hypo-hyperglycaemia/#:~:text=A%20hypo>

If you feel any of the following symptoms (weakness, trembling or shaking; sweating; light headedness/headache; lack of concentration; behaviour change; dizziness; tearfulness/crying; irritability; numbness around the lips/fingers and hunger, you may have hypo and it can be confirmed by checking your blood glucose level.

Please simply click the following link for hypo management.

<https://www.diabetesaustralia.com.au/managing-diabetes/hypo-hyperglycaemia/#:~:text=A%20hypo%20is%20treated%20by,has%20risen%20above%204mmol%2FL>.

Hyperglycaemia

Dear participants, just as important to prevent and treat hypos, it is also important to prevent and manage hyperglycaemia. It occurs when your blood glucose levels are too high, that is, usually above 15 mmol/L. Hyperglycaemia can be caused by not enough insulin, eating too much carbohydrate food, sickness or infection, stress or reduced physical activity. If you experience any of the following symptoms (excessive thirst; lethargy; frequent urination; blurred vision; lack of concentration and change in behaviour/usually irritable, you may have hyperglycaemia and it can be confirmed by checking your blood glucose level. Over time, high blood glucose levels can lead to diabetes related complications. If your BGLs are regularly above your target range, make an appointment to see your diabetes health team.

<https://www.diabetesaustralia.com.au/managing-diabetes/hypo-hyperglycaemia/#:~:text=A%20hypo%20is%20treated%20by,has%20risen%20above%204mmol%2FL>.

<https://www.diabetesaustralia.com.au/managing-diabetes/hypo-hyperglycaemia/#:~:text=A%20hypo%20is%20treated%20by,has%20risen%20above%204mmol%2FL>.

<https://www.diabetesaustralia.com.au/managing-diabetes/hypo-hyperglycaemia/#:~:text=A%20hypo%20is%20treated%20by,has%20risen%20above%204mmol%2FL>.

Managing risk & other impacts of T2DM

- immunisation

Dear participants, research shows people with diabetes have higher chances to catch 'flu' or infection that may cause bronchitis and pneumonia. If you are over 65, the risk of dehydration and feeling unwell due to high blood glucose levels is higher. We understand keeping your glucose levels within the target range can be challenging, it will be even more difficult when you are sick from those infections or illness which makes diabetes management even more difficult. The good news is that influenza and pneumococcal vaccines can prevent the flu and pneumonia. Other recommended vaccinations including DTP (diphtheria, tetanus, pertussis), Hepatitis B and Herpes zoster (shingles).

Please simply click the following links for more details.

<https://www.diabetesaustralia.com.au/managing-diabetes/pneumococcal-disease/>

[https://www.diabetesvic.org.au/topic-of-the-month-detail?](https://www.diabetesvic.org.au/topic-of-the-month-detail?ocmsLang=it&tags=Topic-Of-The-Month%2F2018%2FApril&content_id=a1R90000)

GP guidelines

<https://www.diabetesaustralia.com.au/managing-diabetes/pneumococcal-disease/>

https://www.diabetesvic.org.au/topic-of-the-month-detail?ocmsLang=it&tags=Topic-Of-The-Month%2F2018%2FApril&content_id=a1R90000

Travel

Dear participants, people with diabetes can travel safely, provided a few extra precautions are taken and the travel is planned. Those not using insulin generally have few problems during travel. The stress of travel may increase blood glucose levels slightly. The decreased activity experienced in a long plane trip, together with the amount of food given en route, often results in increased blood glucose levels. These should return to normal once a more usual lifestyle has been resumed at the destination. You should ideally have a medical consultation at least six weeks before the proposed travel, particularly if they are on insulin. This allows time to assess control and alter management as required. You might benefit from referral to a credentialed diabetes educator to go through their travel plans and help prepare a detailed travel management plan, including sick day management.

GP guidelines

Diabetes management during Ramadan

Dear participants, we understand if you are a healthy adult Muslim, you are required to fasten during Ramadan. Although, people with chronic illnesses such as diabetes are not obliged to fast, and are able to donate to a charity as atonement; however, many still choose to fast. The main concern for diabetes management during Ramadan is hypoglycaemia. Fasting can disrupt normal glucose homeostasis and lead to serious consequences.

[https://
www.racgp.org.au/
getattachment/
cbebef7d-9738-4dc8-
af85-b822ecbd164b/
Diabetes-
management-during-
Ramadan.pdf.aspx](https://www.racgp.org.au/getattachment/cbebef7d-9738-4dc8-af85-b822ecbd164b/Diabetes-management-during-Ramadan.pdf.aspx)

Dear participants, continue with the previous Ramadan eating, people in the 'very high risk' category such as people with severe or recurrent episodes of hypoglycaemia in the 3 months before Ramadan; history of recurrent hypoglycaemia; history of hypoglycaemic unawareness; poor glycaemic control before the month of Ramadan; diabetic ketoacidosis episode or hyperosmolar hyperglycaemic state within 3 months before Ramadan; acute illness. People in the 'high risk' category such as sustained poor glycaemic control; well-controlled type 2 diabetes on multiple-dose or mixed insulin; stable macrovascular complications; comorbid conditions that may affect cognitive function; treatment with drugs that may affect cognitive function; work or other activities that require intense physical labour.

If you are one of those people in very high- or high-risk groups, you are discouraged from fasting during Ramadan, and a post-Ramadan GP assessment is recommended.

Exercising and diet during Ramadan

Dear participants, during Ramadan, extra care should be taken if you choose to do regular or light exercise as it can increase risk of hypoglycaemia and dehydration. This is particularly an issue when Ramadan falls in summer months, due both to the higher ambient temperature and the greater number of daylight hours. Patients should try to divide their daily calories between the breakfast (suhoor) meal and iftar. They should endeavour to eat well-balanced, low-glycaemic-index foods that are high in fibre, such as fruits and vegetables.

As above

Use of technology in T2DM

Dear participants, recent research shows that technology can help you to manage your diabetes. They are divided into three main categories. GP guidelines

- 1) Information technology – such as mobile phone apps, SMS messaging, wearable technology (e.g. fitness trackers, smartwatches), web-based programs and clinic-based chronic disease care programs
- 2) Technological innovations for monitoring of glycaemia – such as continuous glucose monitoring (CGM) and flash glucose monitoring, which provide greater insights into glycaemic patterns

Dear participants, information technology - A recent research found that information technology such as mobile phone apps and web-based applications combined with standard diabetes care resulted in clinically significant reduction in glycated haemoglobin (HbA1c) in people with type 2 diabetes.¹ Additionally, there is emerging evidence that information technology interventions are associated with: 1) reduced sedentary behaviour (computer, mobile and wearable technologies), 2) increased physical activity (online self-tracking program), 3) improvements in diet and exercise, including understanding of nutrition (counselling delivered via mobile phone messaging).

Community resources

Dear participants, there are many additional resources or support available in your local communities.

community pharmacies - apart from dispensing medications for diabetes, they also offer a range of additional diabetes services such as access to dieticians, diabetes educators and free blood glucose check. Pharmacists can assist diabetics to improve patient's compliance in taking their medicines and using the devices by conducting a Diabetes Medscheck through their local community pharmacy. Some bigger pharmacies also offer the service of weekly visits by a diabetes nurse educator to provide useful information and resources to diabetic patients.

Dear participants,

[https://
www.diabetesaustralia.com.au/](https://www.diabetesaustralia.com.au/)

Diabetes Australia resources - diabetics can access their testing strips, needles and devices at a subsidised cost through the NDSS from any participating pharmacies in Australia. Some resources are developed through funding from the National Diabetes Services Scheme (NDSS) – an initiative of the Australian Government administered with the assistance of Diabetes Australia are available on the NDSS website.

<https://www.diabetesaustralia.com.au/>

Dear participants, there are other community FREE services or resources available for you. Sometimes free services about diabetes education will be run in your local communities, such as community health centres, local libraries often organised by councils. You may wish to search around in your communities for those types of services.

Correct some Myths

Address patients concern about the side effects of medications

Dear participants, you may worry about if the medication you take will cause any side effects. Unfortunately, every medication has its side effects. It happens because the body is very complex and any drug (foreign substance) can not only target the part of the body related to your medical condition, it also targets other parts of the body which are unrelated to your medical condition and cause discomfort sometimes. Since we are all different, people can experience different side effects from the same type of medication, for example, metformin. Here are associated common gastrointestinal disturbances people may experience, such as diarrhoea, nausea, flatulence, indigestion, vomiting and abdominal discomfort. Some side effects are temporary and will be adjusted and tolerated by your body later on. However, if any of the above concerns you and has a significant impact on your daily life, please discuss this with your GP who may review your health and suggest you an alternative medication.

Professional knowledge

Patients overly rely on medications – think they don't need to make much afford to adjust their lifestyles

Dear participants, your blood glucose levels can not only be influenced by the amount released by the liver which can be regulated by some medications, but also depends on your diet and physical activities. Thus, it is good news that your great effort to eat a healthy diet and being physically active will help you to control blood glucose levels, thus improving your diabetes condition together with your medication management.

Professional knowledge

Dietary aspect of text messages (done by Louisa Li – Accredited Practising Dietitian, Credentialed Diabetes Educator; Li Li Dai)

Importance of dietary modifications/general dietary information (done by Louisa)

Attitudes towards dietary management of DM		
<p>Lack of understanding about the dietary importance in DM management</p> <p>1</p>	<p>Dear participants, lifestyle interventions, including diet and physical activity, play very important roles in managing blood glucose levels throughout stages of type 2 diabetes, body weight and reducing the risk of developing diabetes-related complications, such as cardiovascular disease.</p> <p>Healthy eating is the foundation of diabetes management. It is about enjoying a variety of foods from each of the Five Food Groups:</p> <ul style="list-style-type: none"> - Vegetables and legumes/beans - Fruit - Wholegrain foods - Lean meat, fish, poultry, tofu, tempeh and nuts - Dairy products and non-dairy calcium fortified plant alternatives 	<p>Managing type 2 diabetes Diabetes Australia</p> <p>Healthy diet for diabetes Diabetes Australia</p>
<p>Think medications are adequate to manage their DM, so no need to make afford of eating healthy</p> <p>2</p>	<p>Dear participants, if you have newly diagnosed type 2 diabetes, healthy eating is one the first line treatments. It is vital for managing blood glucose levels and reducing diabetes complication risks through your diabetes journey. Hence, you need to be aware of what, when and how much you eat every day.</p> <p>Dear participants, if you are above your most healthy weight, a small weight loss may be beneficial while a larger amount will have greater positive metabolic outcomes for long term. A weight loss target is usually set as 5% to 10% of an initial weight. For example, if your current weight is 80kg, you will aim to lose 4-8kg for better diabetes control.</p>	<p>Healthy diet for diabetes Diabetes Australia</p> <p>Recommendations Type 2 diabetes in adults: management Guidance NICE</p>
<p>Tried to make dietary changes themselves before but nil much improvement - so lost the confidence</p> <p>1</p>	<p>Dear participants, everyone’s needs and goals are different, and there is no one-size-fits -all approach to food and diabetes. Hence, people with diabetes should talk to an Accredited Practising Dietitian (APD) in conjunction with their diabetes team for individualized advice. Moreover, dietary habit changes are often slow and incremental. APD can assist you with making good dietary changes and maintaining them to achieve improved diabetes outcomes.</p>	<p>Healthy diet for diabetes Diabetes Australia</p>
<p>Think healthy eating is</p>	<p>Dear participants, eating a healthy food is not about strict</p>	<p>Professional</p>

<p>not delicious</p> <p>1</p>	<p>limitations, having bland food or depriving yourself of the food your love. Healthy eating or cooking can also be delicious. For example, using herbs and spices in cooking can liven up a meal and have additional health benefits. Active compounds in ginger may help prevent oxidative stress and inflammation that occurs as part of aging. Curcumin in turmeric is anti-inflammatory and may have protective effects in health. Garlic may have anti-inflammatory, antimicrobial and antioxidant properties.</p> <p>There are great cookbooks that suit people of all ages and backgrounds, with and without diabetes https://diabetesshop.com/collections/cookbooks-and-nutrition</p>	<p>knowledge</p>
<p>Keen on other special diets e.g. keto/vegan/intermittent fasting, etc</p> <p>1</p>	<p>Dear participants, people with diabetes often have experienced many years of ‘yo-yo’ dieting and a cycle of weight loss and gain. However, there is no need for a ‘special ’ diet for type 2 diabetes, just the requirement to follow a sensible and balanced eating plan as the general population, including:</p> <ul style="list-style-type: none"> ○ Having high-fibre, low glycaemic index (GI) source of carbohydrate, such as fruit, vegetables, wholegrains and pulses ○ Eat regular meals and spread them evenly throughout the day ○ Swapping from high fat to low fat dairy products ○ Having oily fish ○ Eat a diet lower in saturated fat and trans fat 	<p>Healthy diet for diabetes Diabetes Australia</p> <p>Recommendations Type 2 diabetes in adults: management Guidance NICE</p>
<p>Environmental factors/limitations</p>		
<p>Lack of professional dietary support</p> <p>1</p>	<p>Dear participants, Accredited Practising Dietitian (APD) is a health professional who applies best evidence practice to clients to help to manage their health conditions, including diabetes. APD use a whole person approach, considering each person’s medical history, as well as their needs, goals and lifestyle, to tailor nutrition advice for each person. Your doctor can refer you to see APD or you can find an APD through Dietitians Australia website to support your health needs https://member.dietitiansaustralia.org.au/faapd</p>	<p>Dietitian Australia</p>
<p>Busy lifestyle, no time to prepare meals</p> <p>3</p>	<p>Dear participants, healthy food can be quick and easy to prepare and delicious. You can find some great healthy 5-ingredients recipes through LiveLighter website https://livelighter.com.au/recipe/tag/5-ingredients</p> <p>Dear participants, you may have no time to cook when you are busy with other commitments. Low fat frozen meals with extra salad and vegetables could be great alternatives. For example, Healthy Choice, Lean Cuisine and Weight Watchers frozen meals.</p>	<p>Professional knowledge</p>

	<p>Dear participants, more healthy simple meal ideas include:</p> <ul style="list-style-type: none"> ○ When cooking meals, you can try to make extra and freeze some in individual portions to use later days ○ Use jars of bottled pasta or stir-fry sauce, canned soup or packet flavour bases as a starting point for meals ○ Fresh pasta and lasagna cooks faster than dried ones. Cousous and microwave rice pouch are also quick options instead of uncooked rice or pasta ○ Add frozen or tinned vegetable in your meal is a quick and easy way to boost up your vegetable intakes 	
<p>Financial issues to prepare healthy meals</p> <p>2</p>	<p>Dear participants, healthy eating does not need to be expensive. The below tips help you make healthy food choices without breaking your budget:</p> <ul style="list-style-type: none"> ○ Make a shopping list and stick to it ○ Compare prices and brands. Plain label choices or home brands are usually as healthy as other more expensive brands ○ Look for specials ○ Buy in bulk, store or freeze things for later use ○ Buy fruit and vegetable in season and look for special <p>Dear participants, more budget eating tips are:</p> <ul style="list-style-type: none"> ○ Some canned foods (e.g. beans, vegetable, fruit and fish), packaged food (e.g. UHT milk or custards), dried foods (e.g. lentils, skim milk powder, pasta, rice, instant mashed potato) and frozen foods (e.g. vegetable) are cheap and healthy choices ○ Use cheaper cuts of chicken or meat but make sure to remove the skin or trim fat off meat first. Any fat that is in the dish can be removed by letting it go cold in the refrigerator then 	<p>Professional knowledge</p>

	<p>skim the fat off the top</p> <ul style="list-style-type: none"> ○ Pressure cooker cooks cheaper cuts of meat quickly and improves texture, this saves on the shopping and the fuel bills ○ Use a microwave or grill instead of frying so that you don't need to use oil or fat 	
<p>Healthy recipe ideas</p> <p>10</p>	<p>Good morning, if you don't have much time preparing your breakfast, how about trying this quick simple healthy breakfast toastie recipe? Healthy breakfast toastie</p> <p>Hi, have you ever tried this yummy cheesy vegetarian option? Healthy cheese & spinach gozleme</p> <p>Hi, how about a healthy fluffy vegetarian omelette for a weekend brunch? Healthy fluffy spinach & mushroom omelette</p> <p>Hi, you don't need to avoid starchy vegetables even you have diabetes. Enjoy this warm easy-to-cook fake baked sweet potato dish in freezing cold night! Healthy fake baked loaded sweet potato</p> <p>Hi, one of the healthiest ways to enjoy your vegetables is in a hearty soup, where all the great nutrients infuse into a comforting broth. Let's taste this creamy cauliflower soup! LiveLighter - Healthy Creamy Cauliflower Soup Recipe</p> <p>Hi, this classic pumpkin soup with potatoes and chicken stock is known to warm up in winter but great at any time of year. Healthy pumpkin soup</p> <p>Hi, how about trying this back-to-basics healthy delicious pasta meal? Healthy tuna & lemon pasta</p> <p>Hi, have you tried this quick healthy yoghurt cup recipe? It is perfect for breakfast, snack or dessert! Healthy yoghurt cup</p> <p>Hi, having a party? These healthy vegetarian dips can be an excellent addition on your party table. Healthy hummus four ways</p> <p>Hi, who said people with diabetes can't have dessert? Enjoy this healthy frozen treat in hot summer. Healthy mango sorbet</p>	<p>LiveLighter - Healthy recipes</p>
<p>Healthy eating before and after exercises</p> <p>1</p>	<p>Dear participants, you may need to have more carbohydrate food or drink if you are at risk of a hypoglycaemic episode during or after exercise (i.e. pre-exercise BGL <5 mmol/L and taking insulin or sulfonylurea).</p>	<p>RACGP pg38</p>

	<p>You should liaise with your diabetes team to make a plan to prevent or treat hypo. A rapid-acting/high GI glucose source should be carried at all times, such as glucose jelly beans, or glucose gel/drink.</p>	
<p>Lack of eating out options</p> <p>5</p>	<p>Dear participants, eating out and takeaways can be part of your healthy diet. It is important to consider your food choices and portion size. Some general tips for eating out include:</p> <ul style="list-style-type: none"> ○ Plan ahead by selecting venues that have some healthy choices on the menu ○ Look for options that contain many vegetables or are vegetable based ○ If you wants meat dishes, choose grilled lean meat, poultry or fish, instead of deep or pan-fried and battered foods and creamy sauces where possible ○ If you are having more than one course, consider sharing an entrée. Coups and salad with minimal dressing are good entrée choices <p>Dear participants, please find more healthy eating out tips below:</p> <ul style="list-style-type: none"> ○ Choose baked potato or side dish of cooked vegetables or salad, instead of chips or wedges ○ If your main meal does not come with serve of vegetable or salad, order additional vegetable and salad, and request to be served without a cream or oil based dressing (choose lemon juice or vinegar if possible) ○ Ask for a jug of water to quench your thirst before ordering other drinks <p>Dear participants, please find more healthy eating out tips below:</p> <ul style="list-style-type: none"> ○ Take it easy with alcohol. Order a glass of wine instead of a bottle. Alternate your alcoholic drinks with water or diet soft drink and sip alcoholic beverages slowly 	<p>Professional knowledge</p> <p>Baker IDI, Healthy Eating Out & Take Away Foods</p> <p>Diabetes Australia, Eating Out & Diabetes, 2007</p> <p>SA health, Healthy Takeaways and Eating Out, 2014</p>

- If you want dessert, share dessert between two or finish the meal with a skim milk coffee or a fragrant pot of tea
- Eat slowly and talk a lot!
- Listen to your body's fullness signal and avoid over-eating. You don't have to finish everything on your table.

Dear participants, many restaurants are more than happy to help if you can't find something suitable on the menu. Feel comfortable in asking staff about the dish of your choice and request simple changes if required. The below re ideas of making healthier food choices in different types of restaurants:

- Italian:
 - Choose minestrone/vegetable soup rather than creamy soup
 - Choose grilled fish or other seafood
 - Choose pasta with tomato or vegetable based sauces rather than creamy sauce
 - Choose lean meat or chicken
- Greek:
 - Choose yoghurt or bean based dips
 - Choose grilled marinated meat on skewers or in Lebanese bread with salad
 - Choose felafel, kibbi, tabouleh and bean salad

Dear participants, more healthy eating tips in different types of restaurants are:

- Indian:
 - Choose oven baked samosa, lean meat/chicken/fish in curry sauces, herbs, spices or tandoori

	<ul style="list-style-type: none"> ▪ Choose curried vegetables, steamed rice, naan, chapati, roti ▪ Limit curried based on cream/coconut milk/coconut cream, rice pilau, poori (deep fried flatbread) ○ Asian (Chinese, Thai, Malaysian): <ul style="list-style-type: none"> ▪ Choose noodle/vegetable soups ▪ Try steamed entrée instead of fried ▪ Choose steamed rice or noodles ▪ Limit dishes containing coconut cream/milk ▪ Choose steamed, braised, curried or barbecued seafood/lean meat/skinless poultry ▪ Limit deep fried or battered dishes ▪ Fill your plate with plenty of vegetables or salads 	
Other important aspects		
Diet and medications interactions 1	Dear participants, there is an increased risk of hypo if alcohol is consumed while using certain medications, such as sulfonyleurea. To reduce the risk of hypoglycaemia, individualized dietary recommendations are suggested, especially for carbohydrate and alcohol intake.	Recommendations Type 2 diabetes in adults: management Guidance NICE RACGP pg44
How to prevent and manage hypo risks 2	<p>Dear participants, possible causes of hypo (BGL<4 mmol/L) include inadequate carbohydrate food intake, delaying or missing meals or snacks, too much insulin or diabetes tablets, excessive alcohol consumption or being physically active without enough carbohydrate foods.</p> <p>It is important to test your blood sugar level if you experience the below symptoms: heart palpitations, sweating more than usual, dizziness, strong headache, blurred vision, shaking, excessive hungry, pins and needles around the mouth, lack of concentration, irritability or loss of consciousness.</p> <p>Dear participants, ff your blood glucose levels are less than 4 mmol/L, treat hypo with one of the following:</p> <p>100 ml Lucozade, 60 ml TruePlus Glucose Drink, 5 Gluc-</p>	Managing hypoglycaemia fact sheet (ndss.com.au) Hypoglycaemia (hypo) and Hyperglycaemia - Diabetes Australia Hypoglycaemia (low blood glucose) (baker.edu.au)

	<p>oJel Jelly Beans, 1 small glass (150 ml) of regular soft drink or 1 tube oral glucose gel.</p> <p>You need to wait for 10-15 minutes and recheck your blood glucose. If your blood glucose is still less than 4 mmol/L, you need to repeat the above treatment. If your blood glucose is more than 4 mmol/L, you need to continue with the following steps:</p> <p>Have a low GI snack (e.g. 1 piece of medium fruit, 1 slice of grain bread, 1 glass of milk or 1 muesli bar) or follow with your regular meal containing carbohydrate (e.g. low GI bread/pasta/rice/corn/legumes/lentils/low GI potato/sweet potato).</p> <p>It is important to report any unexplained or frequent hypo to your doctor.</p>	
<p>Alcohol drink & DM 1</p>	<p>Dear participants, if you consume alcohol, it should be in moderation as part of a healthy lifestyle. Recommendation of alcohol consumption is same for people with and without diabetes. Females are advised to consume up to one standard drink per day and up to two standard drinks per day for male.</p> <p>Excessive alcohol can lower BGLs and reduce awareness of hypoglycaemia and contribute excessive energy intake for those who are overweight or obese.</p>	<p>RACGP pg44-45</p>
<p>Physically/emotionally unwell & eating 4</p>	<p>Dear participants, everyday illness or infection can affect your blood glucose levels and make it more difficult to control. It will be helpful to discuss with your diabetes team and have a personalised sick day action plan and sick day management kit ready. Start following your sick day action plan immediately when you feel unwell or have any signs of illness.</p> <p>Dear participants, it is important to keep your body well hydrated with adequate carbohydrate intake despite you are unwell:</p> <ul style="list-style-type: none"> ○ Try to maintain your normal meal plans if possible. If you can't, have some easy-to-digest drinks, snack or small meals, such as dry toast, dry biscuits, mashed potato, plain rice, soups or custard ○ Fluid intake should be increased, try to have a cup of fluid (250 ml) every hour <p>Dear participants, when you are sick, check your blood gluc-</p>	<p>RACGP pg133-134</p> <p>Sick day management - Diabetes Australia</p>

	<p>ose levels every 2-4 hours, or more frequently if your blood glucose level is low.</p> <ul style="list-style-type: none"> ○ If BGL > 15 mmol/L, drink one cup of non-glucose-containing fluids every hour (e.g. water, diet cordial or diet soft drink, weak tea with no sugar/honey, diet jelly or broth) ○ If BGL < 15 mmol/L and you can't eat, drink one cup of fluids containing carbohydrate every hour (e.g. regular cordial or soft drink, juice, sports drinks, weak tea with sugar/honey, jelly or sweet ice blocks) <p>Dear participants, if you are vomiting or have diarrhoea, oral rehydration fluids can help to replace fluid and electrolytes (e.g. Gastrolyte or Hydralyte). If you are unable to tolerate oral fluids and blood glucose level continues to drop, it is advised to attend medical care.</p> <p>Most of your oral diabetes medication can continue if you have diarrhoea or vomiting, with some exceptions (e.g. Metformin and SGL-2 inhibitors). Please consult your GP, pharmacist or other diabetes professionals if vomiting or diarrhoea is significant (e.g. multiple episodes, or lasting more than a few hours).</p>	
<p>Counselling re: how to make positive and sustainable dietary changes</p> <p>2</p>	<p>Dear participants, keeping a food journal can track your eating, recognize food habits and helps you to eat a more healthful diet. Some apps (e.g. MyFitnessPal) can help you achieve your goals.</p> <p>Dear participants, mindful eating may help adults with obesity eat less sweets and manage their blood glucose. It also suggests mindfulness can bring greater awareness to food triggers and habits in people with diabetes.</p> <p>To practice mindful eating, you can focus on your food and reduce eating distraction by turning the television off and putting your phone, book or newspaper aside during mealtime. Please take your time to enjoy your food by using all your senses – savour all of the sensations, as well as listening for your body signals that tell you that you are no longer hungry or you have had enough of that food.</p>	<p>Professional knowledge</p> <p>Healthy diet for diabetes Diabetes Australia</p>

Semi-tailored dietary strategies/tips (done by Li Li Dai)

<p>Common issues to address</p> <p>(knowledge, shopping and cooking skills, lifestyle/work commitments, family structure, living environment)</p>	<p>Text messages</p>	<p>Reference</p>
<p>Importance of having breakfast</p>	<p>Dear participants, as you know breakfast is an important meal of the day. It provides you with energy and nutrients your body needs for the whole day. It also stabilise your blood glucose levels as you will less likely eat a big meal later and cause sudden raise of the blood sugar level. It also improves your body’s metabolism which is beneficial for your weight management.</p> <p>https://nutritionaustralia.org/fact-sheets/breakfast/#why-should-i-eat-breakfast</p> <p>https://www.betterhealth.vic.gov.au/health/healthyliving/breakfast</p>	<p>Nutrition Australia</p> <p>https://nutritionaustralia.org/fact-sheets/breakfast/#why-should-i-eat-breakfast</p> <p>Better health channel – Australia</p> <p>https://www.betterhealth.vic.gov.au/health/healthyliving/breakfast</p>
<p>Issues – no appetite for breakfast</p>	<p>Dear participants, sometimes we hear people say they don’t have an appetite for breakfast. If you also feel the same, perhaps you can try to start with some liquid or semi-liquid-based breakfast.</p> <p>Here are some simple and nutritious options:</p> <ul style="list-style-type: none"> * fruit and vegetable smoothies (more vegetable portion than fruit to maintain a good blood glucose level) * up & go small pack (equivalent to Weetbix with milk) * rolled oats with low-fat milk (make sure not to cook it for too long as it can overly raise your blood glucose level) <p>We understand it is not easy to establish a new dietary habit, but you will succeed with motivation for good health and more practice. You will also feel more empowered for daily tasks when you start to have breakfast. :)</p>	<p>Dietetics professional knowledge & opinion</p>

<p>No time for breakfast (busy morning, kids, prepare lunch boxes, etc)</p>	<p>Dear participants, you may feel no time to prepare a healthy breakfast. You may rush to work or you need to prepare your kids for school.</p> <p>2-3 pieces of Weetbix/1 serve of high fibre cereal, covered with low-fat milk or low-fat yoghurt or calcium fortified soy milk, add a few small cut fruit slices and half teaspoon of cinnamon can be a simple, budget and nutritious option for you or even for your family.</p> <p>It has a lower effect to your blood glucose level but provides you with loads of nutrients such as fibre, protein, calcium, iron, vitamin B and other vitamins and minerals to start your busy but fulfilling day. Enjoy your breakfast! :)</p>	<p>Dietetics professional knowledge & opinion</p>
<p>Lack of breakfast options (simple, budget, nutritious)</p>	<p>Dear participants, over the years you may have similar foods for breakfast and you may not enjoy it much. There are many great breakfast recipes online, there are some of the simple, budget and nutritious options for you.</p> <p>https://www.diabetesaustralia.com.au/recipe-tag/breakfast/</p> <p>https://www.heartfoundation.org.au/search/breakfast-recipes</p> <p>Enjoy the variety of healthy breakfast! :)</p>	<p>Diabetes Australia</p> <p>https://www.diabetesaustralia.com.au/recipe-tag/breakfast/</p> <p>Heart foundation – Australia</p> <p>https://www.heartfoundation.org.au/search/breakfast-recipes</p>

<p>Large family & have tight budget for foods</p>	<p>Dear participants, we understand the importance and challenge of food budgeting, especially if you have a large family. But we can still eat healthy breakfasts within our budgets. So here are some tips for you and your family.</p> <ul style="list-style-type: none"> * choose home-brand supermarket products, which often have the same nutritional values as original brands but are cheaper. * buy in bulk or large size rather than small size products * try to buy less processed foods, e.g. rolled oats, rather than high-sugar cereals * try to compare products with the same weight, e.g. how much per every 100 grams of product – often you can read it from the price ticket. * Avoid high-sugar, high-fat snacks, e.g. soft drinks, chocolates, lollies, potato crisps, cakes, and biscuits. They are often on ‘special’, but they are expensive if we consider their poor nutritional values. Most importantly, they are not diabetes-friendly foods as they can quickly raise blood glucose levels. <p>You will soon become an expert in budgeting foods :)</p>	<p>Dietetics professional knowledge & opinion</p>
<p>Unhealthy food choices, often excessive intake of carbohydrate or high fat foods – look for healthy alternatives</p>	<p>Dear participants, while it is important to eat a nutritious breakfast, some people may choose excessive amount of carbohydrate foods which can significantly increase your blood glucose level. Here are some simple tips for you.</p> <ol style="list-style-type: none"> 1. try to choose grainy bread instead of white bread 2. try to choose high fibre and low sugar 	<p>Dietetics professional knowledge</p>

	<p>cereal options e.g. rolled oats, Weetbix</p> <p>3. try to have fruits as snack instead of breakfast (note: a few cut fruit slices can be added in your cereal)</p> <p>4. try not to have any sugary drinks including fruit juice</p> <p>5. try to reduce or avoid amount of sugar added in your tea or coffee</p> <p>Enjoy a healthy and diabetes friendly breakfast! :)</p>	
<p>Buy lunch outside (nil time to prepare and bring lunch from home)</p>	<p>Dear participants, we understand it can be a bit challenging when buying lunch outside. However, you can still eat a healthy lunch outside with a few tips.</p> <p>Please check the link below for some helpful tips.</p> <p>https://www.ndss.com.au/wp-content/uploads/fact-sheets/fact-sheet-eating-out.pdf</p>	<p>https://www.ndss.com.au/wp-content/uploads/fact-sheets/fact-sheet-eating-out.pdf</p>
<p>Lack of healthy choices near work places</p>	<p>Dear participants, there may not be many healthy choices near your workplaces, how about bring your own healthy lunch box</p> <p>Please check the following links for healthy lunch box preparation tips.</p> <p>https://www.diabetesaustralia.com.au/blog/the-benefits-of-a-brown-paper-bag-lunch/</p> <p>https://www.diabetessa.com.au/Web/Education_and_Events/DiabetesSA_Resources/Plan_For_A_Perfect_Lunch_Box.aspx</p>	<p>https://www.diabetesaustralia.com.au/blog/the-benefits-of-a-brown-paper-bag-lunch/</p> <p>https://www.diabetessa.com.au/Web/Education_and_Events/DiabetesSA_Resources/Plan_For_A_Perfect_Lunch_Box.aspx</p>
<p>Unhealthy lunch choices e.g. excessive carbohydrate/high fat foods intake</p>	<p>Dear participants, we understand it can be easily overeat during lunch time after a half day of busy work or study. However, a large portion especially from carbohydrate foods can contribute to high blood glucose level. Here are some simple tips for you.</p> <p>1. have some healthy snack 2 hours before your lunch (e.g. fruit or low fat yoghurt) to prevent you have a big appetite for lunch</p>	<p>Professional knowledge</p>

	<p>2. bring or order extra serve of salad or vegetables to replace some of your carbohydrate foods e.g. rice, pasta and eat vegetables/salad first</p> <p>3. bring simple and healthy lunch options such as sandwich made by grainy bread, salad and lean protein (tuna or chicken), this can also help you to slow down your eating if you have a short lunch break</p>	
False belief regarding healthy lunch choices - ? avoid CHO	<p>Dear participants, we are surrounded with tons of information, and unfortunately some of them are incorrect. When it comes to carbohydrate foods, it is particularly important for diabetes management. Simple avoid any carbohydrate foods is NOT helpful to manage your blood glucose levels, rather, choose moderate amount of low GI carbohydrate and have them throughout the day is the key for diabetes management.</p> <p>https://www.diabetesaustralia.com.au/living-with-diabetes/carbs-protein-fats/#:~:text=These%20foods%20can%20help%20manage,most%20types%20of%20fresh%20fruit.</p>	<p>https://www.diabetesaustralia.com.au/living-with-diabetes/carbs-protein-fats/#:~:text=These%20foods%20can%20help%20manage,most%20types%20of%20fresh%20fruit.</p>
Short lunch break	<p>Dear participants, we understand many of you have relatively short lunch break in your busy workplace, so a simple but nutritious lunch is a good option for you.</p> <p>Please check the following link for some great lunch options.</p> <p>https://www.ndss.com.au/wp-content/uploads/fact-sheets/fact-sheet-healthy-meal-ideas.pdf</p>	<p>https://www.ndss.com.au/wp-content/uploads/fact-sheets/fact-sheet-healthy-meal-ideas.pdf</p>
Lack of lunch options	<p>Dear participants, please check the following link for more delicious, healthy and easy to prepare lunch options.</p> <p>https://www.betterhealth.vic.gov.au/health/healthyliving/Lunch-at-work#10-tips-for-getting-into-a-work-lunch-routine</p>	<p>https://www.betterhealth.vic.gov.au/health/healthyliving/Lunch-at-work#10-tips-for-getting-into-a-work-lunch-routine</p>

<p>Too tired to cook dinner</p>	<p>Dear participants, we understand it can be tiring to cook a big dinner for whole family. Here are some great dinner ideas for you and your family – they are simple, not time consuming and healthy!</p> <p>https://nutritionaustralia.org/category/recipes/?fwp_recipes=dinner-meal</p>	<p>https://nutritionaustralia.org/category/recipes/?fwp_recipes=dinner-meal</p>
<p>Finish work late, nil much time to cook dinner</p>	<p>Hi! Do you usually finish work late and don't have much time to prepare dinner? Here are some tips for you.</p> <ol style="list-style-type: none"> 1. package own frozen meals on the weekend e.g. bolognaise sauce, roast meat, casseroles, pumpkin soup & heat them up when ready to eat 2. add salad or steamed/roast/stir fry vegetables when ready to eat dinner 3. serve with low GI carbohydrate foods (e.g. grainy bread/brown rice/pasta/sweet corn/sweet potato) <p>A diabetes friendly portion control guide (choose a plate less than 25cm):</p> <p>half plate = carbohydrate foods a quarter plate = non-starchy vegetables (leafy vegetables, try different colours) a quarter plate = lean protein</p>	
<p>Lack of cooking skills/tips</p>	<p>Hi, please check the following link for cooking skills and tips</p> <p>https://www.diabetes.org.uk/guide-to-diabetes/enjoy-food/cooking-for-people-with-diabetes</p> <p>https://www.betterhealth.vic.gov.au/health/healthyliving/cooking-tips-for-busy-people#about-convenience-food</p>	<p>https://www.diabetes.org.uk/guide-to-diabetes/enjoy-food/cooking-for-people-with-diabetes</p>
<p>Unhealthy dinner options</p>	<p>Dear participants, we understand it can be challenging to make dietary changes. However, with a few simple changes, you can eat a healthy and diabetes friendly diet. Here is a great link for your reference.</p>	<p>https://baker.edu.au/-/media/documents/factsheets/baker-institute-factsheet-making-healthy-meals.pdf</p>

	<p>https://baker.edu.au/-/media/documents/fact-sheets/baker-institute-factsheet-making-healthy-meals.pdf</p>	
Lack of healthy snack ideas	<p>Hi! Please check the following link for simple and healthy snack ideas.</p> <p>https://www.ndss.com.au/wp-content/uploads/fact-sheets/fact-sheet-healthy-snacks.pdf</p>	<p>https://www.ndss.com.au/wp-content/uploads/fact-sheets/fact-sheet-healthy-snacks.pdf</p>
Nil habit to have snack	<p>Dear participants, you may not have the habit to have snack, however, healthy snacks can help you manage your blood glucose levels. Why?</p> <ol style="list-style-type: none"> 1. snacking 2 hours apart from your main meals can help you to avoid have a big appetite later during main meals 2. opportunity to have fill yourself with extra nutrition 3. stabilise your blood glucose level (steady rather than a quick rise or fall pattern) 	Professional knowledge
Tempted to buy snacks outside	<p>Hi! We are fortunately living in a food abundance environment, but unfortunately, we are also having difficulties to resist the temptation of buying unhealthy snacks outside. Here are the tips for you.</p> <ol style="list-style-type: none"> 1) prepare your own healthy snacks & put into smaller or portion control container <ul style="list-style-type: none"> - fruit/fruit salad, low fat yoghurt, vegetables sticks (carrot, celery, cucumber), cherry tomatoes - unsalted nuts – preferably almonds and walnuts 2) have regular meals & not to skip meals – help you not feeling too hungry and looking for anything (most likely unhealthy foods) to eat 3) try not to walk near the supermarket confectionary foods aisle – often those 	Professional knowledge

	<p>foods are on special, but if you think about their poor nutritional values, they are expensive.</p> <p>Be a wise shopper and healthy eating ambassador! :)</p>	
Comfort food choices when dealing with stress	<p>Dear participants, are you sometimes looking for comfort foods to deal with stress? We understand your needs during special time. How about choose some healthy alternative to replace your usual high energy/calories, high fat and high sugar options.</p> <p>* vegetable based snacks – cut them into pieces or sticks e.g. carrot, celery, cucumber and serve them with healthy dips e.g. avocado, hummus or even low fat yoghurt</p> <p>* choose fruits low in sugar contents e.g. strawberries, cherry tomatoes</p> <p>* try a new healthy recipe</p> <p>https://www.diabetesaustralia.com.au/recipes/</p> <p>https://nutritionaustralia.org/category/recipes/</p>	<p>https://www.diabetesaustralia.com.au/recipes/</p> <p>https://nutritionaustralia.org/category/recipes/</p>
Eating out healthier options	<p>https://www.diabetesvic.org.au/topic-of-the-month-detail?tags=Topic-Of-The-Month%2F2017%2FOctober&content_id=a1R900000JiGjEEAV</p>	<p>https://www.diabetesvic.org.au/topic-of-the-month-detail?tags=Topic-Of-The-Month%2F2017%2FOctober&content_id=a1R900000JiGjEEAV</p>
Other useful links/support programs	<p>https://www.diabetesaustralia.com.au/education-and-events/#type-2-diabetes</p> <p>https://www.diabetes.org.uk/guide-to-diabetes/enjoy-food/eating-with-diabetes/10-ways-to-eat-well-with-diabetes</p> <p>https://westernsydneydiabetes.com.au/uploads/2022/05/Healthy-Living-Options-Food-2021.pdf</p>	<p>https://www.diabetesaustralia.com.au/education-and-events/#type-2-diabetes</p> <p>https://www.diabetes.org.uk/guide-to-diabetes/enjoy-food/eating-with-diabetes/10-ways-to-eat-well-with-diabetes</p> <p>https://westernsydneydiabetes.com.au/uploads/2022/05/Healthy-Living-Options-Food-2021.pdf</p>

Recipes text messages *(done by Li Li Dai)*

1. Hi! Here is a simple, delicious and healthy recipe for you

Beef San Choy Bau <https://nutritionaustralia.org/recipes/meal/dinner-meal/beef-san-choy-bau/>

note: this recipe contains rice noodles which is a type of carbohydrate, so you are suggested to cut down your carbohydrate portion from your usual stable foods to maintain a good level of blood glucose level

2. Hi! Have you ever tried a high fibre and diabetes friendly stable food – couscous?
Chickpea & couscous salad <https://nutritionaustralia.org/recipes/meal/lunch-meal/chickpea-couscous-salad/>

note: this dish contains carbohydrate, protein and salad – can be a great summer lunch or dinner option

3. Hi! You can still eat burger with some recipe modifications.
Beetroot & tofu burger

<https://nutritionaustralia.org/recipes/meal/lunch-meal/beetroot-burgers/>

note: tofu can be a great/low fat alternative to meat

4. Hi! Do you miss your favourite pie?
Rainbow pie

<https://nutritionaustralia.org/recipes/meal/dinner-meal/rainbow-pie/>

5. Hi! Here is a simple, healthy and delicious lunch option for you.

Mexican beef wrap

<https://nutritionaustralia.org/recipes/meal/lunch-meal/mexican-beef-wraps/>

6. Hi! Here is a great alternative to Spaghetti Bolognese!

Lentil Bolognese

<https://nutritionaustralia.org/recipes/meal/dinner-meal/lentil-bolognese/>

Note: lentil is a rich source of protein and fibre

7. Hi! Don't feel like to have breakfast, how about start from a liquid healthy breakfast?

Straw-banana breakfast smoothie

<https://dietitiansaustralia.org.au/recipes/straw-banana-breakfast-smoothie>

8. Hi! It's weekend, how about try this breakfast recipe full of vitamins, minerals and antioxidants!

Carrot, kale, coriander and feta fritters

<https://dietitiansaustralia.org.au/recipes/carrot-kale-coriander-and-feta-fritters>

9. Hi! Healthy and delicious dips serve with vegetable sticks can be a great way to boost your nutrients intake!

Avocado smash

<https://dietitiansaustralia.org.au/recipes/dip-plate-avocado-smash>

Carrot and chickpea dip

<https://dietitiansaustralia.org.au/recipes/dip-plate-carrot-and-chickpea-dip>

Beetroot

<https://dietitiansaustralia.org.au/recipes/dip-plate-beetroot>

Red lentil hummus

<https://dietitiansaustralia.org.au/recipes/red-lentil-hommus>

10. Hi! Try this delicious and healthy snack or side dish recipe!

Sweetcorn and zucchini potato cakes

<https://dietitiansaustralia.org.au/recipes/sweetcorn-and-zucchini-potato-cakes>

11. Hi! Miss your pasta, how about try this high fibre pasta dish?

High fibre bread and veggie pasta

<https://dietitiansaustralia.org.au/recipes/sweetcorn-and-zucchini-potato-cakes>

12. Hi! A healthy soup can be a simple meal option for you and your family!

Chickpea pumpkin soup

<https://dietitiansaustralia.org.au/recipes/chickpea-pumpkin-soup>

13. Hi! You can still enjoy a yummy dessert, try this delicious and nutritious recipe!

Fig & honey custard tartlets

<https://dietitiansaustralia.org.au/recipes/fig-honey-custard-tartlets>

14. Hi! Here is a simple and great rice recipe to add more vegetables for your diet!

Rainbow rice

<https://dietitiansaustralia.org.au/recipes/fig-honey-custard-tartlets>

15. Hi! Here is a delicious and hearty soup for you and your family!

Butter bean, mushroom, carrot and barley soup

<https://www.diabetesaustralia.com.au/recipe/butter-bean-mushroom-carrot-and-barley-soup-recipe/>

16. Hi! Try this yummy and hearty soup this winter!

Creamy cauliflower, chicken and split pea soup

<https://www.diabetesaustralia.com.au/recipe/butter-bean-mushroom-carrot-and-barley-soup-recipe/>

17. Hi! Here is a delicious fish dish recipe for you, boost your omega 3 fatty acids for your heart and brain!

Teriyaki salmon

<https://www.diabetesaustralia.com.au/recipe/teriyaki-salmon/>

18. Hi! Try this colourful and nutritious lunch option!

Perfectly portioned tasting plate for one

<https://www.diabetesaustralia.com.au/recipe/teriyaki-salmon/>

19. Hi! Please check this great capsicum recipe, you will be amazed!

Stuffed capsicums

note: a great dish when you invite guests for dinner

<https://www.diabetesaustralia.com.au/recipe/stuffed-peppers/>

20. Hi! Do you miss your chips, here is a healthier alternative for you!

Homemade pita chips with hummus

note: be mindful eating - portion control of this carbohydrate based snack

<https://www.diabetesaustralia.com.au/recipe/homemade-pita-chips-with-hummus/>

Exercises aspect of text messages (done by Jane Jun Wen Zhu, clinical physiotherapist)

0-3 months

【Dear participants,exercise can not only control your blood glucose,but also make your body and minds happy.Therefore,let us work together to campaign for healthy living it up!

Firstly,Let's understand some benefits of Exercise :

- 1.It can improve the body's sensitivity to insulin,enhance muscle utilization of glucose,thereby reduce blood glucose.
- 2.It can promote the burning of fat in the body and help reduce your own weight.
- 3.It can improve metabolism and cardiopulmonary function】

- 【Notice:1.do not exercising if you have experienced a hypolycaemic event within the previous 24hours.
2.The ideal pre-exercise range for blood glucose is 5.0-13.9mmol/L.
3.Be aware that delayed hypoglycaemia can occur up to 48hours post-exercise.
4.Carry a rapid-acting glucose source at all times(eg.glucose jelly beans,fluose gel/drink).】

【Firstly,whatever your age,whether you have exercise habits or not,you may have 1000 step/day.This will help you control your blood glucose.[1】

【Feedback

Keep going,insist on having 1000 step/day.】

【If you feel uncomfortable after having 1000 step/day,you can reduce your step or walk slowly,you can keep this style until you feel suitable.

If you persist in 1000 step/day and feel good,no stuffiness or asthma.

Congratulations,you are getting used to the feeling of exercise,and we can choose another type of exercise.】

【Dear participants,you may decrease the amount of time spent in daily sedentry behaviour.We recommend that interrupt prolonged sitting every 30minutes for blood glucose benefits.】

3-9months

【Lifeyle interventions continue to play an important role in managing glycaemia and cardiovascular disease,so keep going!!!】

【you may choose one or two types of exercise and spread over at least 3 days/week,with no more than two consecutive days without activity.Each exercise should take 30-60 minutes,you can have a 10-minute rest after each exercise.After finishing all of the exercise,you also need stretch your arm and leg for 5 minutes.

If you are under 65: 1)running 2)jogging 3)cycling

If you are over 65: 1)jogging 2)walking 3)chest-expanding exercise 4)does some simple housework eg.Mowing wing the lawn

During exercise,if you can comfortably talk but can't sing,this intensity of exercise is suitable for you,if you are unable to talk comfortably,you should choose another kind of exercise.】

【Feedback】

【Dear participants,you may decrease the amount of time spent in daily sedentry behaviour.We recommend that interrupt prolonged sitting every 30minutes for blood glucose benefits.】

9-12 months:

【More difficult than previous exercise

If you are under 65: 1)swimming 2)lifting dumbbells 3)Yoga.

We recommend that strength exercise such as lifting dumbbells should be carried out at least 2 days a week.

If you are over 65: 1)dancing 2)Taichi 3)Using elastic band for exercise

We recommend that strength exercise such as lifting a water bottle filled with water for exercise should be carried out at least 2 days a week.

During exercise,if you can comfortably talk but can't sing,this intensity of exercise is suitable for you,if you are unable to talk comfortably,you should choose another kind of exercise.】

【Dear participants,you may decrease the amount of time spent in daily sedentary behaviour.We recommend that interrupt prolonged sitting every 30minutes for blood glucose benefits.】

【Moderate intensity,continuous exercise can reduce blood glucose.

You will have satisfactory blood glucose index if you keep exercising,then you may require less dose of medication and have good living habits.Success belongs to the persevering!】

【We hope that sports can become a habit of your life, and you can always maintain exercise habits.】

【Life lies in exercise,exercise lies in persistence,and persistence lies in health.】

[1]Carmen C,Cuthbertson et al,Associations of steps per day and step intensity with the risk of diabetes:the Hispanic Community Health Study/Study of Latinos(HCHS/SOL)[J].

Int J Behav Nutr Phy Act.2022(19):46

[2] American Diabetes Association,2019

[3]Exercise&Sports Science Australia,2012

[4]Management of type 2diabetes:A handbook for general practice

Feedback:

1、 Do you persist walking or jogging every day?

2、 Do you feel stiffness and asthma after exercise?

3、 IF you feel good after exercise and this type of strength is acceptable,let's increase intensity,conversely,we will keep this intensity or reduce intensity.

Psychological support aspect of text message (done by Mitra Ahmadi, 2nd year medical student, mental health nurse & specialising in diabetes management)

1) Dear Participants

If you find you are struggling with emotional eating, this can be due to poor sleep and fatigue which are common among patients with type 2 diabetes.

Zhu, Bingqian; Chen, Xiangfang; Park, Chang G.; Zhu, Daqiao; Izci-Balserak, Bilgay. Fatigue and Sleep Quality Predict Eating Behavior Among People with Type 2 Diabetes. *Nursing Research* 69(6):p 419-426, 11/12 2020. | DOI: 10.1097/NNR.0000000000000447

2) Dear participants, these are some simple steps to help you eat mindfully. This involves focusing on the bodily sensations associated with food intake, such as the taste, smell, texture, and satiety signals, rather than mindlessly eating to regulate emotions. This practice promotes a healthier relationship with food and improves overall well-being.

Czepczor-Bernat, K., Brytek-Matera, A., Gramaglia, C. et al. The moderating effects of mindful eating on the relationship between emotional functioning and eating styles in overweight and obese women. *Eat Weight Disord* 25, 841–849 (2020). <https://doi.org/10.1007/s40519-019-00740-6>

3) Dear participants, a Simple daily routine of noticing and acknowledging positive events can improve emotional well-being. Can you think about your day? went well for you today? How did you feel? Try to savor that moment.

4) Dear participants, to improve mental and emotional well-being you can practice expressing gratitude and acts of kindness towards someone. Try to engage in positive reappraisal of people.

Greer S, Ramo D, Chang Y, Fu M, Moskowitz J, Haritatos J Use of the Chatbot “Vivibot” to Deliver Positive Psychology Skills and Promote Well-Being Among Young People After Cancer Treatment: Randomized Controlled Feasibility Trial *JMIR Mhealth Uhealth* 2019;7(10):e15018 URL: <https://mhealth.jmir.org/2019/10/e15018>, DOI: 10.2196/15018

5) Dear Participants, if you are feeling down today, trying to catch up with a friend for a cup of coffee or engage in social activities such as walking or joining an exercise group. As belonging and purpose can improve overall life satisfactions.

6) Dear participants, living with diabetes can be challenging, and it's important to take care of both our physical and mental health. There are resources available to help individuals manage the emotional aspects of diabetes. The Diabetes Counselling Service and NDSS Helpline (1-800-637-700) offer support and advice to individuals with diabetes, as well as their families and caregivers.

7) Dear participants, if you were interested in connecting with peers online, there is great online and face to face groups. Please visit the website for more informations.

(<https://peersupport.ndss.com.au/>)

8) Dear participants, connection with family and friends can provide sense of companionship and help you feeling better, elevate your mood. As diabetes is a chronic condition, it's understandable that at times it can be challenging to manage on your own. Reaching out to those close to us for support can be very beneficial.

<https://www.diabetesaustralia.com.au/mental-health/>

8) Dear participants, Self-care isn't selfish

Sometimes life gets busy especially when you have type 2 diabetes, you might be too tired from work or too busy taking care of others. You deserve to focus solely on yourself, do something that you enjoy on a daily basis.

9) Dear Participants, social media and technology is part of our life, but we can choose to limit the time we spend on them and what content we watch. When you find certain topics have negative effect on your emotion and wellbeing, stop and think do you need to continue watching? Can you unfollow them or can you hide their content or ad?

10) Dear Participants, if you find yourself working long hours or overtime on a regular basis, this can have a negative impact on your wellbeing. Having a balanced work and life balance is essential for your health. So, the next time you want to work overtime, stop and think, can you say no? And put yourself first.

<https://www.beyondblue.org.au/personal-best/pillar/why-you-should-go-home-on-time-every-day>