

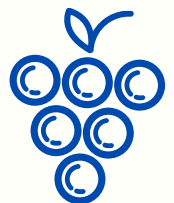


**International
Diabetes Federation**
Europe

NUTRITION AND PHYSICAL ACTIVITY

FOR PEOPLE
LIVING WITH
DIABETES DURING
COVID-19

Good nutrition is very important before, during and after any kind of infection. Infections are dangerous for the body. When they cause a fever, the body needs extra energy and nutrients. In addition, good nutrition is an essential part of treatment for people living with diabetes.



Maintaining a healthy diet is very important during the COVID-19 pandemic. While no foods or dietary supplements can prevent COVID-19 infection, maintaining a healthy diet is an important part of supporting a strong immune system.



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Food hygiene

There is no evidence that food or food packaging is associated with the transmission of coronavirus disease (COVID-19). However, it may be possible that people can become infected by touching a surface or object contaminated by the virus and then touching their face. As always, good hygiene is important when handling food to prevent any food-borne illnesses.

General recommendation when preparing food:

- Wash your hands thoroughly with soap and water for at least 20 seconds before preparing any food, and again before eating.
- Use separate chopping boards to prepare uncooked meat and fish
- Cook food to the recommended temperature.
- Where possible, keep fresh items refrigerated or frozen, and pay attention to product expiry dates.
- Aim to recycle or dispose of food waste and packaging in an appropriate and sanitary manner, avoiding build-up of refuse which could attract pests.
- Always use clean tools and plates.

Food recommendation

Diet and physical activity are the mainstays of diabetes self-management. Even during a crisis such as COVID-19 when you might have to self-isolate or have restricted access to your usual foods, it is important to maintain good nutrition and hydration. Make sure that you eat and drink regularly. A good diet is important for good health. Eating a variety of foods can improve your general wellbeing. You need to eat sensibly, choosing a varied diet from a range of foods.

1. Plan your meals and record what you eat

Plan your meals for the week, including breakfast. People who eat a healthy breakfast usually find it easier to control their weight. Try to keep all meals balanced and aim to eat at least five 80g portions of fruit and vegetables throughout the day.





2. Eat balanced, fresh and unprocessed food

a. Eat fruits, vegetables, legumes (e.g. lentils, beans), nuts and whole grains, and foods from animal sources (e.g. meat, fish, eggs and milk).

b. For snacks, choose raw vegetables and fresh fruit rather than foods that are high in sugar, fat or salt.

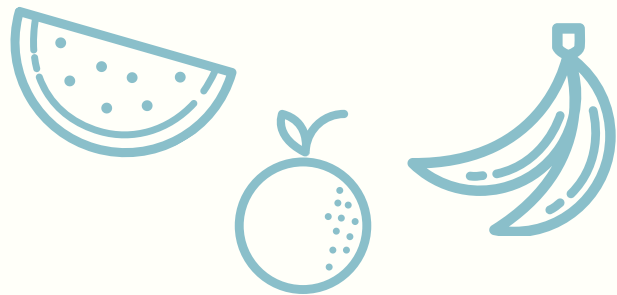
c. Do not overcook vegetables and fruit as this can lead to the loss of important vitamins.

d. When using canned or dried vegetables and fruit, choose varieties without added salt or sugar.

3. Eat moderate amounts of fat and oil and less salt and sugar

a. Consume unsaturated fats (fish, avocado, nuts, olive oil, soy, canola, sunflower and corn oils) rather than saturated fats (fatty meat, butter, coconut oil, cream, cheese, and lard).

b. Choose white meat (poultry) and fish; avoid processed and red meats because they are high in fat and salt.



c. Use low-fat or reduced-fat versions of milk and dairy products.

d. Avoid industrially produced trans fats. These are often found in processed food, fast food, snack food, fried food, frozen pizza, pies, cookies, margarines and spreads.

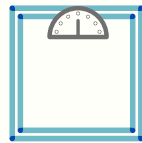
e. When cooking and preparing food, limit the amount of salt and high-sodium condiments (soy and fish sauce, hard cheese).

f. Limit your daily salt intake to less than 5 g (approximately 1 teaspoon), and use iodized salt.

g. Avoid foods (e.g. snacks) that are high in salt and sugar.

h. Limit your intake of soft drinks or sodas and other drinks that are high in sugar (fruit juices, fruit juice concentrates and syrups, flavored milks and yogurt drinks).

i. Choose fresh fruits instead of sweet snacks such as cookies, cakes and chocolate.



4. Portion control

Be aware of your portion sizes. Wait at least 30 minutes before you go back for a second helping as your brain needs that amount of time to register whether or not you are full.

5. Prepare home-cooked meals

During regular daily life, many individuals often do not have the time to prepare home-cooked meals. Spending longer periods of time at home may now offer the possibility to make those recipes you previously did not have time to make. You can choose delivery food options but only from reliable businesses following strict food hygiene requirements. For food delivery and transportation, it is important to keep food at safe temperatures (below 5°C or above 60°C).

6. Drink plenty of fluids

Aim to drink two litres of fluid per day, preferably water. If you must have a flavoured drink choose one that is low in calories and caffeine-free. Avoid adding sugar to teas and coffees or try sweeteners.

7. Cut down on alcohol

Alcohol consumption is a way for many people to cope with stress and may be a problem while staying at home. These drinks have little nutritional value, are often high in calories, and excess consumption is linked to numerous health problems. If you drink alcohol, do so only in moderation.



8. Practice mindful eating

Listen to your body's hunger cues, eat away from distractions like the TV and focus on your meal. Do not eat when you are doing something else such as watching TV or working.

9. Control snacking habits

Distract yourself from snacking, unless you are hungry. Some snacks, such as biscuits, cakes, and crisps are high in calories and saturated fats. Choose healthy options such as fruits and vegetables. Try to have a drink before you have a snack.



Physical activity

Be more active in your daily life and try to take more exercise. Remember that small changes can make a big difference. Find an exercise routine that you enjoy and do this regularly. You can aim to start with doing 5,000 steps at home or in the garden.

Below is a series of daily exercises that can be performed at home, provided by ANIAD, the Italian National Association of Athletes with Diabetes. The exercise intensity of each activity is comparable to one hour of brisk walking, resulting in an energy expenditure of 150-200 calories (Kcal).

- **Treadmill:** one-hour brisk walking (no need to run), which can also be split into three 20-minute sessions. If possible, the slope should be adapted to individual fitness levels, to simulate an uphill walk.
- **Stationary bicycle** (either reclined or classic): two 15-minute sessions at variable intensity (if the equipment allows it). The sessions can be longer on a reclined bicycle since the effort is reduced by the backrest.
- **Bodyweight exercises** such as push-ups, squats, deep stationary lunges, sit-ups or crunches (to strengthen the abdomen) and forward flexes (to strengthen the lower-back muscles). These help maintain muscle tone and, when performed correctly, can have excellent results.
- **Joint mobility and stretching exercises** that can be sourced from common workout, yoga and pilates' routines.

Other ways to train at home:

- Walk up and down eight sets of stairs, for at least six floors. This is not recommended for people with type 2 diabetes who do not exercise regularly.
- Jump rope
- Use small weights and home fitness accessories such as rubber bands, kettlebells, wrist weights, ankle weights and pockets filled with heavy objects. Makeshift objects can also be used, such as buckets, cases, bottles filled with water or even small backpacks filled with objects of different weight.



Recommended duration of daily physical activities

Infants under 1 year of age

- All infants should be physically active several times a day.
- For those not yet mobile, this includes at least 30 minutes in prone position (tummy time), as floor-based play, spread throughout the day while awake.

Children under 5 years of age

- All young children should spend at least 180 minutes a day in a variety of types of physical activities at any intensity.
- 3-4 year old children should spend at least 60 minutes of this time in moderate- to vigorous-intensity physical activity

Children and adolescents aged 5-17 years

- All children and adolescents should do at least 60 minutes a day of moderate to vigorous-intensity physical activity
- This should include activities that strengthen muscle and bone, at least 3 days per week
- Doing more than 60 minutes of physical activity daily will provide additional health benefits

Adults aged over 18 years

- All adults should do at least 150 minutes of moderate-intensity physical activity throughout the week, or at least 75 minutes of vigorous-intensity physical activity throughout the week.
- For additional health benefits, adults should increase their moderate-intensity physical activity to 300 minutes per week, or equivalent.
- For developing and maintaining musculoskeletal health, muscle-strengthening activities involving major muscle groups should be done on two or more days a week.
- In addition, older adults with poor mobility should do physical activity to enhance balance and prevent falls on 3 or more days per week.