

Making Exercise Part of Your Life

Exercise has many benefits. When you exercise often, it can improve your overall health. Exercise can:

- Help the heart work better
- Increase HDL ("good") cholesterol
- Lower triglycerides
- Lower blood pressure
- Reduce blood sugar levels and your diabetes risk
- Help you maintain muscle mass
- Reduce stress and improve mental health
- Reduce the risk of osteoporosis, colon and breast cancers

Types of Exercise

A well-rounded exercise program will have three types of exercise.

- Aerobic exercise
- Strength training
- Stretching

Aerobic exercise (endurance or "cardiovascular" exercise) should be the **base** of your exercise program. Aerobic exercise involves continuous movement of the major muscle groups (arms, legs). This results in an increased heart rate and breathing rate. Types of aerobic exercise include:

- Walking
- Swimming
- Running
- Rowing
- Cycling/biking

Strength training ("resistance" exercise) involves lifting weights to build muscle strength and size.

Stretching makes muscles more flexible.

Getting Started

Check with your doctor before starting an exercise program. Choose aerobic activities that you enjoy and fit them into your lifestyle.

Make a plan that includes:

1. What type of activity you will do
2. When you will do it
3. Where you will do it
4. Why you want to do it
5. Goals you can achieve

Slowly increase how often, how hard, and how long you exercise. Build up to a goal of **at least** 150 minutes (2 ½ hours) per week. To achieve a healthier weight, aim for 250-300 minutes (4-5 hours) per week. You can add shorter sessions together to achieve your daily goal.

Intensity

Use personal **heart rate (HR)** goals and **perceived effort** to gauge intensity. Slowly increase and decrease your heart rate. Use the equation below to find your target heart rate for 60-80% intensity.

Target HR, 60% intensity =
 $(220 - \text{Age}) \times 0.6$

Target HR, 80% intensity =
 $(220 - \text{Age}) \times 0.8$

Use this table to measure your perceived effort, or exertion. The best exercise is between an 11-13 rating on the perceived exertion scale (PES).

Perceived Exertion Scale
6
7 Very, Very Light
8
9 Very Light
10
11 Fairly Light
12
13 Somewhat Hard
14
15 Hard
16
17 Very Hard
18
19 Very, Very Hard

Your breathing rate should increase, but not so much that you can't talk. You should be able to talk, but not sing. If it's not easy to hold a conversation, you are working harder than needed to have health benefits. Your chance of injury increases if you exercise too hard.

Exercising with Diabetes

The risk of high blood glucose (hyperglycemia) and low blood glucose (hypoglycemia) during exercise is a concern for people with diabetes.

High blood glucose can occur if the blood sugar is high before exercise.

Low blood sugar can be caused by:

- Too little food before exercise.
- Exercising when insulin is peaking.

Tips for Diabetics

- Exercise after meals and snacks.
- Inject insulin into non-active muscle group and ask doctor if you need to adjust insulin to support regular exercise.
- Always carry an **ID** that shows you have diabetes and a fast-acting **sugar source** during exercise, such as glucose tablets or hard candy.
- Check blood glucose levels before and after exercise, and sometimes during. **Do not** exercise if blood glucose is greater than 250mg/dl.

Guidelines for Nutrition During Exercise

Type of Exercise	If blood glucose is...	Increase food intake by...
Short duration 30-45 minutes	Less than 100mg	10-15g carbohydrate per hour (1 fruit or 1 starch serving)
	100mg/dl or above	You do not need to eat more
Moderate intensity 30-60 minutes	Less than 100mg	20-50g carbohydrate per hour (2 fruit or 2 starch with 1 meat and 1 milk serving)
	100-180mg/dl	15g carbohydrates per hour (1 fruit or 1 starch serving)
	180-250mg/dl	You do not need to eat more
Vigorous intensity 60+ minutes	Less than 100mg/dl	50g carbohydrates per hour (2 starch, 1 fruit, 1 milk and 1-2 meat servings)
	100-180mg/dl	25-50g carbohydrates per hour (2 starch or 2 starch, 1 fruit and 1 milk serving)
	180-250mg/dl	10-15g Carbohydrates per hour (1 fruit or 1 starch serving)

Helpful Tips

- Wear comfortable shoes with supportive arches that will not cause blisters.
- Wear loose-fitting, weather-appropriate clothes.
- Drink plenty of water.
- Avoid outdoor exercise on hot and humid days (heat index above 85°F).
- Avoid outdoor exercise when the temperature or wind chill is below zero.
- If you have diabetes, watch for low blood sugar, and be prepared to treat it.
- Listen to your body. **Slow down or stop and call your doctor if you have:**
 - Chest pain, pressure, or heaviness
 - Extreme shortness of breath
 - Extreme sweating
 - Blurred vision
 - Frequent skipped heart beats
 - Dizziness, lightheadedness
 - Nausea

The improvements in your health will be worth the effort!

Who to Call

If you are a UW Health patient and have more questions, please call UW Health at one of the phone numbers below. You can also visit our website at www.uwhealth.org/nutrition.

UW Health Nutrition clinics and American Family Children's Hospital (AFCH) can be reached at **(608) 890-5500**.

Health Education clinics can be reached at **(608) 287-2770**.

If you are a patient receiving care at UnityPoint – Meriter, Swedish American or a health system outside of UW Health, please use the phone numbers provided in your discharge instructions for any questions or concerns.

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person's health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 8/2021 University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing. HF#613.