



# **Movement Guide:**

## **Exercise as Medicine for Glucose Control and Longevity**

# Why Movement Matters

When it comes to reversing prediabetes and type 2 diabetes, many people first look for a pill. Pills may lower blood sugar numbers temporarily, but they don't address the root cause: insulin resistance.

Exercise, however, is one of the most powerful “medicines” you can take—without the side effects. In fact, movement is the missing key that unlocks your cells to let glucose in.

**Exercise increases insulin sensitivity**, meaning your body doesn't have to pump out as much insulin to keep blood sugar stable. This helps reverse diabetes at the cellular level, not just cover it up.

Exercise doesn't just add years to your life—it adds life to your years. Regular activity keeps you looking and feeling younger, improves mood, strengthens bones, and lowers your risk for heart disease, cancer, and dementia.

As one leading researcher put it:

“Exercise is the closest thing we have to a magic bullet” (Booth et al., 2012).

## How Exercise Improves Glucose Uptake

When you move your muscles, they act like a sponge, soaking up glucose from your bloodstream—even without insulin. This effect lasts for hours after activity and improves with consistency.

- Aerobic exercise (walking, biking, swimming, dancing) improves your body's ability to use oxygen and burns glucose for fuel.
- Resistance training (weights, bands, bodyweight movements) builds muscle, and more muscle means more storage space for glucose.
- Flexibility and balance training (stretching and functional movements) reduce stiffness, improve mobility, and help prevent injury—keeping you moving long-term.

# What Counts as Exercise?

The good news is that exercise doesn't have to mean the gym. Anything that gets your body moving and your heart beating counts!

Here are examples you can use to reach your weekly movement goals:

- Brisk walking (neighborhood strolls, mall walking, treadmill)
- Dancing (salsa, line dancing, Zumba, even in your kitchen!)
- Cycling (stationary or outdoor)
- Swimming or water aerobics
- Strength training (resistance bands, light dumbbells, bodyweight)
- Gardening or yardwork (digging, raking, planting)
- Household chores (vacuuming, mopping—yes, they count!)
- Play (basketball with your kids, playing tag, pickleball, hiking)

According to the American Diabetes Association, the goal is at least 150 minutes per week of moderate-intensity aerobic activity, spread over at least three days, plus resistance training at least twice a week (Colberg et al., 2016).

## Making Movement Fun

The best exercise is the one you'll actually do. Choose activities you enjoy, mix them up, and invite friends or family. Movement can be social, playful, and joyful—not a chore.

Ideas to keep it fun:

- Listen to music or a podcast during walks.
- Turn chores into a dance party.
- Try new activities like pickleball, swimming, or group fitness classes.
- Celebrate non-scale victories: lower A1C, more energy, better sleep, glowing skin.

# Compassionate Encouragement

It's easy to feel discouraged or overwhelmed, especially if exercise feels new or intimidating. But remember: you don't have to be perfect to see progress.

Even 10 minutes at a time counts. Every step, every movement, every stretch is a deposit into your health bank. With each bit of activity, your body is healing and becoming more responsive to insulin.

You are not “too old,” “too busy,” or “too far gone” to benefit. Research shows that people of any age—even into their 80s—gain significant improvements in glucose control, muscle strength, and independence when they start moving (Colberg et al., 2016).

## Key Takeaways

- Exercise is medicine—it improves insulin sensitivity, lowers blood sugar, and keeps you young and vibrant.
- You don't need a gym; movement can be fun, social, and part of everyday life.
- Aim for 150 minutes of movement per week + strength training 2x weekly.
- Start small, stay consistent, and celebrate your progress.

## Sources

- Booth FW, Roberts CK, Laye MJ. Lack of exercise is a major cause of chronic diseases. *Compr Physiol*. 2012 Apr;2(2):1143-1211.
- Colberg SR, Sigal RJ, Fernhall B, et al. Exercise and Type 2 Diabetes: The American College of Sports Medicine and the American Diabetes Association: Joint Position Statement. *Diabetes Care*. 2016;39(11):2065-2079.
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