



T1D Exercise

Feel great, relieve stress, sleep better, live longer!

Preparing for exercise

- What can you do with T1D? Everything you can do without T1D! It just takes a little planning to ensure we stay in range.
- To stay in range we need adequate insulin delivery and nutrition
- Exercise changes BG levels, if too much insulin or carbs are on board
- Exercising in range gives the best results in terms of muscle growth, fat loss, and having energy
- High BG breaks down muscle tissue, and reduces muscle growth
- Low BG is exhausting and forces you to eat unnecessary calories and causes weight gain
- Very intense exercise like heavy lifting or mountain biking can raise BG levels through stress hormones. CGM can help monitor this
- What do you enjoy doing? Exercise is not a chore. Making it fun will help get people started. Some types of exercise do feel like work, initially, but will feel like a needed break from stress and high BGs once the habit is formed

Cardiovascular

- Cardio improves circulation, lowers BG, and extends life
- What is the best for BG levels? Cardiovascular including walking, running, hiking, swimming, biking, and more are often seen as the best to help lower BG and improve cardiovascular health. Yoga is great for circulation, flexibility, and peace of mind.

- Gardening and house projects can be a great workout, and as a bonus leave you with a nice, clean surrounding and upgraded home!

Strength

- Strength training improves circulation, lowers BG, and can help extend life in T1Ds
- Strength training and gym workouts do require access to gym equipment, but can be done in any weather conditions

Preventing Lows

- Don't over-bolus before a workout, place pumps on *exercise mode*
- Plan ahead: if you are going for a long run, hike, or bike ride always plan ahead in terms of starting with a high enough BG to workout, and try not to have too much insulin on board. Highs are unpleasant, and cause long term damage, but lows can be fatal
- Always keep something handy to prevent low BGs during exercise! Clif, Gu and similar gel packets are one of the fastest ways to recover from a low BG, are easy to carry and fit in almost any pocket size. There are a wide variety of flavors, and some have caffeine for an extra kick
- Glucagon is an injectable form of glucose, in case the T1D is too low to consume food, drink, or gel. This should be a last resort. It is best to avoid going low enough to need this. Low BGs can be fatal, and even if they are not, they can cause brain damage
- Drinks with glucose and gels with glucose are among the fastest, simplest, safest ways to raise BG, foods with carbs or sugar are a distant second. Glucagon is one of the fastest, but as an emergency medication with a price tag this should be a last resort
- Gummies, Clif Gel Blocks, raisins, Waffle Stingers and similar snacks used by endurance athletes can be handy snacks to keep in backpacks and with activity bags
- Some wetsuits and most swimsuits have a small pocket or area that a gel pack can be concealed. Wetsuits sleeves and swim trunk pockets

Recovery

Do not overtrain. It is not a good idea to train too hard or long, especially when starting a new program. The best work outs are challenging, but don't leave you too sore or tired the next day or two. It is normal to be a bit sore when first starting out, or when doing a new activity but it is crucial to listen to your body, as it will tell you when you are doing more harm than good.

Resources

[Diabetic Shred Guide](#) for lean muscle growth for T1Ds

[Yoga with Tim](#) (Yoga classes of various lengths, levels and focuses on YouTube)

Planet Fitness, 24 Hour Fitness, LA Fitness, Chuze are all good gym choices depending on your location, schedule and preference. Most offer free trial memberships for 1-7 days to try before joining.

Many at home workouts can be great including Insanity and similar by DVDs; exercise bikes, rowing machines, and Peloton (Wal-Mart and Amazon have lower cost options); Pilates, yoga, stretching and more can be found on YouTube.

Walking, running, and hiking shoes can be found at stores like RoadRunner (great option for precise fitment and custom-made insoles), Zappos, and similar online shops.