



## Goals of Diabetes Lesson Plans

14-15 years

### Healthy Bodies

Goals of Diabetes Lesson Plans	Age Group: 14-15yrs
<b>Topic:</b> Exercise (Delivered by Dietitian)	
<b>Title of session:</b> Healthy Bodies	<b>Timing of session:</b> Approx 28mins

#### Aim of session:

- Appreciate exercise as part of diabetes treatment.
- Understand effect of exercise for cardiovascular health and relate to diabetes.
- Understand effect of exercise on BG levels.

#### Learning Objectives:

- Do I know how much activity/exercise I need to do every day?
- Do I know the beneficial effects of exercise on physical and mental health?
- Can I describe the effects of exercise on BG levels and precautions to prevent hypo?

#### Assessment for Learning (AfL) activities built into session:

- Identify screening tests for heart health.
- Complete exercise scenarios in pairs.
- Create personal activity plan to achieve 60 mins/day.

#### Evaluation activities to be built into session:

- Personal exercise plan.
- Compare activity levels with peers.

#### Materials/resources needed:

- Flipchart and pens for activity list.
- Exercise scenarios – attached.
- Blocked artery pictures or models.
- Drawing pens and post its.
- Access to DigiBete Goals of Diabetes Videos.

## **Exercise Scenarios: Copy of sets to give each pair.**

### **Scenario 1**

**School PE Lesson, 3rd period, after morning break (10.45 – 11.45am)**

**What would you need to do? Tick all that apply**

- Have usual breakfast with reduced insulin.
- Take PE kit to school.
- Have a 10g snack at break with no insulin.
- Check glucose at break.
- Take pump off at break.
- Reduce basal rate at break.
- Set exercise target at break.
- Check glucose before PE.
- Have a bigger snack at break with normal insulin.
- Have a bigger snack at break with reduced insulin.
- Take hypo treatment to games pitch.
- Leave hypo treatment in changing rooms.
- Check glucose after PE.
- Check glucose before lunch.
- Eat lunch with usual insulin.
- Eat lunch with reduced insulin.
- Miss lunch to do lunchtime activity club.

### **Scenario 1**

**Walking dog after school (30 mins)**

**What would you need to do? Tick all that apply**

- Eat 10g snack after school with no insulin.
- Eat bigger snack after school with usual insulin.
- Eat bigger snack after school with reduced insulin.
- Check glucose before dog walk.
- Take pump off.
- Take poo bags/dog treats.
- Take hypo treatment.
- Take glucose checking kit/phone.
- Take phone.
- Check glucose after walk.
- Check glucose before tea.
- Eat tea with usual insulin.
- Eat tea with reduced insulin.

### Scenario 3

Outside football training, evening (7.30 – 9.00pm), tea at 6.00pm

What would you need to do? Tick all that apply

- Eat snack with usual insulin.
- Eat snack with reduced insulin.
- Eat tea with usual insulin.
- Eat tea with reduced insulin.
- Reduce basal rate from teatime.
- Set exercise target from teatime.
- Check glucose before snack/tea.
- Check glucose before football training.
- Check glucose during football training.
- Check glucose after football training.
- Take hypo treatment to training.
- Take water to training.
- Take sports drink to training.
- Eat supper with usual insulin.
- Eat supper with reduced insulin.
- Eat supper with increased insulin.
- Supper: Toast and jam OR toast and peanut butter OR cheese on toast?
- Reduce insulin overnight.
- Increase insulin overnight.

### Scenario 4

Jump Arena trampolining party (60 mins, 2.00-3.00pm)

What would you need to do? Tick all that apply

- Eat lunch at 12.30 usual insulin.
- Eat lunch at 12.30 reduced insulin.
- Check BG before lunch.
- Check BG before party.
- Take hypo treatment to party.
- Take BG kit to party.
- Take present to party.
- Take sweets to party.
- Take sports drink to party.
- Eat snack after with usual insulin.
- Eat snack after with reduced insulin.
- Check BG after party.
- Check BG before tea.
- Eat tea with usual insulin.
- Eat tea with reduced insulin.
- Usual overnight insulin.
- Reduced overnight insulin.

## Scenario 5

Saturday afternoon trip into town with friends (2.00 – 5.00pm)

What would you need to do? Tick all that apply

- Eat food before leaving home.
- Give usual fast acting insulin.
- Give more fast acting insulin.
- Give less fast acting insulin.
- Take insulin pen/pump + BG checking kit or sensor+phone.
- Take phone.
- Go to lots of different shops.
- Have smoothie/milkshake/bubble tea/frappucino without insulin as a snack.
- Have smoothie/milkshake/bubble tea/frappucino with insulin as a snack.
- Have a different snack.
- Buy a sugar free drink.
- Have tea at home with usual insulin.
- Have tea at home with less insulin.

## Scenario 6

Weight session at gym with friends (60 mins, 5.00 – 6.00pm), eat tea afterwards at 7.00pm

What would you need to do? Tick all that apply

- Check glucose before you go.
- Have a snack with insulin before you go.
- Have a snack without insulin before you go.
- Take phone.
- Take water to drink.
- Take sports drink to drink.
- Take protein shake to drink.
- Take BG kit/sensor with you.
- Check glucose when you get back.
- Have tea with usual insulin.
- Have tea with reduced insulin.
- Have tea with more insulin.
- Reduce overnight long acting insulin.
- Normal overnight long acting insulin.

What I could do (activity)	How Often?	How Long	Who/what do I need to help?
Go swimming	Once a week	45 mins	Friend to come with
Walk home from school	5 x week	30 mins	Friend to come with
Skipping in garden	3 x week	10 mins	Skipping rope
Online workout	2 x week	30 mins	Tablet/phone
Walk dog	4 x week	30 mins	Dog

Time	Session Content/ Taught Content	Resources Needed
<p><b>3 mins</b></p> <p><b>5 mins</b></p>	<p><b>Q:</b> How much exercise/activity should young people do every day? WHY? Heart health (heart is a muscle that needs exercise), strong muscles and bones, healthy weight, helps sleep, co-ordination, independence, social, releases 'happy hormones' so good for mental health Lowers BG, makes insulin work better, reduces cholesterol It is an essential part of diabetes treatment like insulin and good food choices.</p> <p>Important in prevention of cardiovascular disease – diabetes is a risk factor in heart disease in young age. Show model/pictures of blocked arteries, plaque build up Exercise/activity helps to prevent this.</p> <p><b>Q:</b> What screening tests do we do to check on CVD risks? Cholesterol, triglycerides, BP, weight, ask about smoking/vaping, healthy food choices.</p>	<p>Listen to responses. (minimum of 60 mins/day, can be cumulative). Govt informatic of 60 minutes exercise and benefits.</p> <p>Listen to responses.</p> <p>Pictures of gradually blocked arteries/model of same.</p> <p>Flipchart and pens.</p>
<p><b>4 mins</b></p> <p><b>3 mins</b></p>	<p><b>Q:</b> What activities/exercise do you do already? Or what counts as exercise? YP to write randomly on flipchart. Encourage with suggestions of non-sports – add these if lacking.</p> <p>What effect does exercise have on BG levels? Can be high or low depending on type of exercise. Educator to explain difference between aerobic and anaerobic exercise and give examples.</p>	<p>Flipchart and pens.</p> <p>Listen to responses.</p>

Time	Session Content/ Taught Content	Resources Needed
5mins	<p><b>Q:</b> What might you do to prevent hypo?</p> <ol style="list-style-type: none"> <li>1. Check glucose more frequently.</li> <li>2. Reduce insulin before/after if possible.</li> <li>3. Have a snack/drink before/during/after as needed.</li> <li>4. Protein as well as carbs afterwards.</li> </ol> <p>In pairs, work on exercise scenarios – 1 each pair. Each pair to feedback answers in feedback session – can see other scenarios.</p>	<p>Listen to responses.</p> <p>Provide scenarios – attached. Each pair to have copies of all, but only work on one.</p>
5 mins	<p><b>Summary:</b> Watch exercise videos with FA on website or app. Watch some of exercise story videos – rugby/football/running.</p>	<p>Access to website with screen + projector/tablets/laptops or on app on phone.</p>
3 mins	<p><b>Evaluation:</b> Think about what activities/exercise you already do – what is your own individual action plan for doing more if needed. Amongst this group where would you place yourself for activity – top, middle, bottom?</p>	<p>Create action plan on paper or promise to self and store in app – examples provided. Notes section in app – My T1D.</p>