Transition Booklet For Young People With Type 1 Diabetes

Sláinte Leanaí Éireann
ag Cromghlinn

CHI

Children's Health Ireland
at Crumlin

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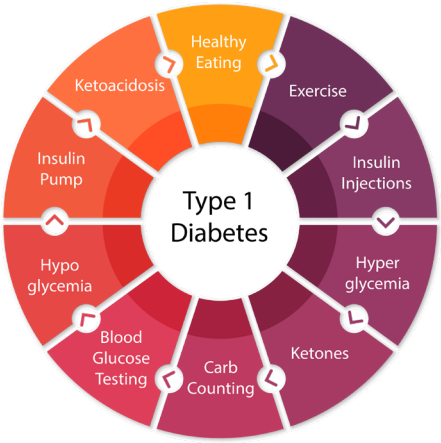
Introduction



As you approach the stage of leaving the paediatric diabetes service, you will be transitioned to the young adult diabetes service. This transition process will be introduced to you from 14 years of age. Changing your care, transitioning to an adult hospital usually happens from 16 years of age but the appropriate age for your transition will be decided in collaboration with yourself, your parents and the Paediatric Diabetes Team. The transition process is normal and is part of growing up.

As you know, diabetes can have real impact on both your life and your family's so having support with the practicalities of day-to-day management and the emotional side of transitioning is important.

We aim to prepare you for transition and your family, to make the process as easy as possible. The information in this booklet will provide you with relevant information to help you during this process.

The Transition Clinic

We provide specific transition clinics with both Tallaght University Hospital and St James Hospital. These clinics are held twice yearly in early spring and early autumn. If you are not intending to attend either of these adult hospitals you will be referred to your preferred adult diabetes service in another hospital.

At the transition clinic you will have the opportunity to meet the adult diabetes consultant and the adult diabetes nurse. It will be in a meet and greet approach and is an opportunity to get to know the adult team in an informal setting.

During the transition clinic, you will meet the adult team on your own. After your consultation your parents will have an opportunity to also meet the adult team. After you attend the transition clinic you will receive an appointment from the adult service but until you attend, you will remain under the care of the paediatric service.

Managing Your Own Diabetes

In preparation for your transition, it will be important for you to know as much as possible about your diabetes and its' management.

We will be offering refresher sessions related to managing injection therapy, pump therapy, exercise, hypos and sick days in the months leading up to transition. It is advisable to gain as much knowledge as you can in preparation with an aim to being independent where possible. Below are some pointers to consider:

Insulin Therapy

MDI (Multi daily injection)

This therapy uses 2 types of insulin – basal (background) insulin and bolus (meal correction) insulin.

Basal insulin (Lantus, Toujeo, Tresiba):
Action lasts from 24 hours or up to 42 hours depending on which insulin you have been prescribed.

Bolus insulin (Rapid-acting: Novorapid/Humalog) or (Ultra-rapid acting: FIASP): Starts working within 4 minutes for ultra-rapid acting and 10 minutes for rapid-acting.

It is important for you to be familiar with the insulins you have been prescribed.

Pump Therapy

Pump therapy uses rapid or ultra-rapid acting insulin only. It is important to always have both basal and bolus insulin pens available as back-up in the event of pump failure.
Keep a note of pump settings:

- Basals
- Ratios
- Sensitivity factor

In case of a pump failure. Have contact details for your pump company helpline /emergency line.

Exams

It is important to consider the effect that exam stress will have on your diabetes. As you prepare for your exams, plan for how to manage blood glucose (BG) levels during exam time to ensure that you perform to the best of your ability and get the results that you deserve.

There are a few things to consider

- Let your school know you have diabetes ahead of the exams. You will be provided with a letter from the hospital stating you have diabetes, require snacks, water, and hypo treatment in the exam hall. If you have to treat a low or high BG during the exam you will be given extra time at the end of the exam (approximately 20 minutes).

- Students doing the Leaving Certificate can apply for DARE (Disability Access Route To Education) when applying to CAO.

- When you are studying, you may be less physically active which may cause your BG levels to be higher than usual.

- If you like to snack while studying your BG levels may rise or anxiety/stress might reduce your appetite causing you to have hypos. Consider speaking to your dietitian to discuss suitable snacks for study time.

Understanding Stress and how it effects your BG Levels:

During times of stress the body goes into a 'fight or flight mode' as it prepares to escape danger. The body responds to stress by moving stores of glucose in the muscles and liver into the bloodstream so that glucose is available to the cells should it be needed.

In Type 1 diabetes, insulin is not always available to help move this glucose from the blood into the cells and it builds up in the bloodstream. This is why blood glucose levels are often higher during times of stress.

Useful Websites for Students

www.diabetes.ie

www.cao.ie

www.access-college.ie

www.ahead.ie

College and Living Away from Home

Going to college is the beginning of a new exciting chapter and it is a time of change where you may be moving away from home and living on your own for the first time. Your familiar support network (family and friends) may not be as accessible as before and you find yourself in an unfamiliar territory. You will be forming new friendships and often new friends and tutors will not be familiar with diabetes.

Preparation is key to a streamlined transition to college life.

- Before you start your college course talk to your diabetes team about what clinic you might attend, particularly if college is located a distance away from home.
- Source a pharmacy close to campus where you can get your diabetes supplies.
- Link in with the college before your start date and inquire about student health services. Is it a walk-in service or do you need an appointment? Is there a doctor on site?
- Review your sick day regimen, prescription in date, extra BG/ketone meter and pens.
- If you wear an insulin pump have the pump company contact details in your phone contacts, in case of technical issues or failure.
- Introduce your new roommates to diabetes and what your diabetes involves for you.
- Explain to your good friends about hypos, how to recognise signs and how to treat.

College life can be busy socially. Plan a night out, eat before consuming alcohol and always carry hypo treatment with you.

Music festivals are fun and this QR code links to a booklet which gives some nice tips for young people with type 1 diabetes going to festivals.

www.digibete.org

Other Useful Websites

www.diabetes.ie
College booklet

www.hse.ie
College booklet

Driving

If you want to learn to drive you must inform both The Road Safety Authority (RSA) and the National Driver Licence Service (NDLS) that you have type 1 diabetes. If you plan to be insured on a parent/guardians car, they are bound to inform their insurance company of your diagnosis.

The insurance premium will not cost anymore because of your diabetes.

You must inform NDLS if you suffer more than one episode of severe hypoglycaemia (where you need someone to help you) within the last 12 months. If you fail to do this, your licence may be revoked by the NDLS/Garda.

Pointers to consider

- Check BG/sensor level before driving.
- Carry sufficient hypo treatment and food in the car.
- Have strips and a glucose meter with the correct time/ date in the car.
- Carry identification which states you have type 1 diabetes.
- If you feel unwell during your journey – **STOP IMMEDIATELY**

Useful Websites

www.ndls.ie

www.hse.ie
Driving

www.diabetes.ie
Driving

Alcohol

Firstly, it is illegal to consume, buy or be served alcohol in Ireland if you are under 18 years of age.

When you have type 1 diabetes there are some things you need to consider to keep you safe and healthy when consuming alcohol:

- Alcohol may cause a hypo as long as 24 hours after drinking.
- Alcohol may cause hypo-unawareness meaning you may not be aware of hypo symptoms.
- Tell your friends about your diabetes and how to recognise symptoms and what to do if you have a hypo.
- Before you go out check your BG or your sensor level. Carry hypo treatment with you.
- Set up emergency SOS/ medical diabetes info on your mobile phone in case of emergency.
- Never drink on an empty stomach.
- Never give an insulin bolus for alcohol.
- Before a night out eating foods with carbs (pasta/rice) will help avoid a hypo.
- Remember that dancing is exercise and may lower your BG.
- Check your BG/sensor level before you go to bed and ensure someone in the household knows you have consumed alcohol.

Useful Websites

www.nhs.co.uk
Alcohol & Drugs

www.jdrf.org
Alcohol & Drugs

www.hse.ie
Alcohol & Drugs

Smoking and Drugs

Smoking cigarettes can lead to a number of heath conditions, whether you have type 1 diabetes or not.

- When you have type 1 diabetes, nicotine contained in cigarettes can cause your BG levels to rise and affect the way your cells absorb insulin, which can make it difficult to manage your glucose levels.
- Smoking can also lead to higher HbA1c levels/time in range, which can increase your risk of diabetes-related complications, such as kidney disease, retinopathy, heart disease, nerve damage, stroke and sexual dysfunction.

Can vaping affect Type 1 Diabetes?

There has not been much research into the impact of vaping or E-Cigarettes on type 1 diabetes. However, they both contain nicotine, which has same effect as inhaling nicotine with a cigarette. Some research has shown that vaping can increase BG levels.

For more information use this QR code

www.jdrf.org
Smoking & Vaping

Recreational Drugs

Recreational drugs are drugs which have not been prescribed by a doctor and are taken for no medical reason.

> Drugs are illegal, harmful and should not be taken under any circumstances.

Drugs affect the brain and will affect your ability to manage your diabetes safely and recognise hypo symptoms. Therefore the risk of hypos is significantly increased.

Useful Websites

www.hse.ie
Alcohol & Drugs

www.drugs.ie
Drugs

www.kidshealth.org

Sexual Health

A normal part of becoming a young adult involves establishing new relationships and for some this may include sexual relationships. In Ireland, the legal age of consent to sexual activity is 17 and it may be a criminal offence to have sex with a person under 17 years of age.

It is very important for young female adults with type 1 diabetes to avoid unplanned pregnancy.

This is because high BG associated with poorly managed diabetes can damage the baby in the days immediately following conception when the baby's organs are being formed, resulting in a higher risk of congenital malformations.

There are many methods of contraception available to young adults with type 1 diabetes. To help you choose the most appropriate method, you can discuss this topic with either your diabetes team or your GP.

Relevant Websites

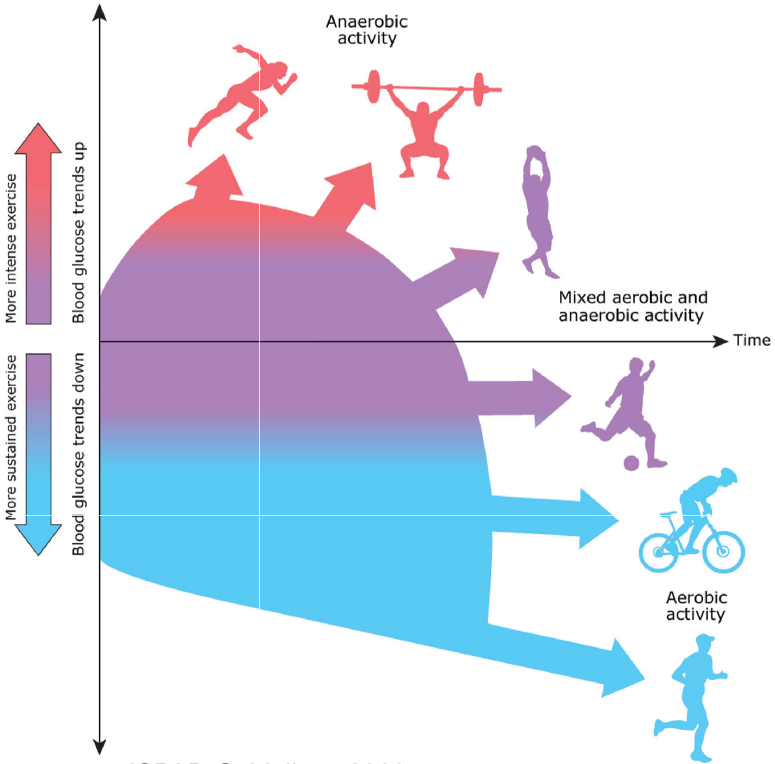
www.jdrf.org
Contraception

www.hse.ie
Diabetes &
Contraception

Activity

Being active is an important part of a healthy lifestyle. All young people should be active for at least 60 minutes every day. Being more active may affect your blood glucose levels. To manage activity you need to understand a bit about how different activities affect your blood glucose levels, you need to check blood glucose levels regularly, adjust insulin doses and use low fat carbohydrate foods to prevent hypoglycaemia.

Activity Types



ISPAD Guidelines 2022

Different types of activity will have different effects on your blood glucose levels. The only way to know how an activity affects the blood glucose level is to check before, during and after the activity. Remember these guidelines are a starting point – contact the diabetes team for individual advice.

Short, sharp fast bursts of activity that make your heart beat very fast and you get very out of breath will usually push blood glucose levels up, *anaerobic activity*.

Mixed activities like team sports may push the blood glucose levels up or down.

Activities that last a longer time, for example running, cycling, swimming will usually lower the blood glucose levels, *aerobic activity.*

Top tips for activity

- Always wear/carry Diabetes ID.
- Continuous glucose monitors are strongly recommended if you are very active.
- Always have a blood glucose meter and hypo treatment with you when you exercise.
- Check glucose levels often.
- If blood glucose is below 5mmol/L or below 8mmol/L and falling have an exercise snack..
- Stay well hydrated
- Eat something containing carbohydrate and protein after exercise - this may be your next meal
- Always check blood glucose levels before going to bed.

Regimen	Before Activity		During Activity	After Activity	
	Bolus	Basal		Bolus	Basal
Injections	-25% to -75% usual insulin bolus if meal is within 1-2 hours of starting activity	Generally not required Talk to your Diabetes team if you think you basal dose needs to be adjusted	If unable to check glucose during activity try longer acting carbohydrate pre activity: Whole fruit Cereal bar, Popcorn	Aim to eat within 1 hour of activity – mixed meal with carbohydrates and protein -25% to -75% of usual insulin bolus If glucose is higher than 15mmol/l consider half usual correction dose	Talk to your Diabetes team if you think your basal dose needs to be adjusted If active all day or activity after 4pm consider reducing basal dose by 20 to 40%
Pump	-25% to -75% usual insulin bolus if meal is within 1-2 hours of starting exercise	If exercise is more than 2 hours since bolus insulin run temp basal up to 90mins before activity ▫Anaerobic: up to -25% temp basal ▫Mixed: -25 to -50% temp basal ▫Aerobic -25% to – 80% temp basal	Take small amounts of fast acting carbohydrate (5-7g) every 30min as needed: Isotonic sports drinks Glucose shots Fruit juice Dextrose tablet Glucose tablet Jelly Babies	Aim to eat within 1 hour of activity – mixed meal with carbohydrates and protein -25% to -75% of usual insulin bolus If glucose is higher than 15mmol/l consider half usual correction dose	If activity after 4pm consider overnight -20 to – 40% temporary basal for 6 hours Avoid pump suspension >2hrs due to risk of hyperglycaemia and ketones

Regimen	Before Activity		During Activity	After Activity	
HCL Pump	Up to -25% usual insulin bolus if meal is within 1-2 hours of starting activity but may not need adjustment	Set temporary exercise target 1-2hrs before activity starts and during activity	Take small amounts of fast acting carbohydrate (5-7g) every 30min as needed: Isotonic sports drinks Glucose shots Fruit juice Dextrose tablet Glucose tablet Jelly Babies	Aim to eat within 1 hour of finishing activity – mixed meal with carbohydrates and protein Up to -25% off usual insulin bolus but may not need adjustment	Resume usual glucose target Can keep exercise target running for 1-2 hours post activity if hypo risk Avoid pump suspension >2hrs

Meal and snack options before, during and after activity

Before Activity	During Activity		After Activity/Before Bed	
Low fat carbohydrate meals	Fast acting carbohydrate	Slower release carbohydrate	Mixed meals withcarbo-hydrate and protein	10g Protein Portions
Bagel/low fat cream cheese Rice cakes/marmite Wrap/lean meat /salad Veg soup/bread roll Jacket potato/beans Rice/fish/veg	Sports drinks Glucose shots Sports gels Fruit juice Dextrose tablet (3g each) Glucose tablet (4g each) Jelly babies (4.5g each)	Apple Low fat milk Low fat yogurt Cracker Rice Cake Jaffa Cake Popcorn	Wholegrain toast/ peanut butter Pasta/tuna/sweetcorn Quesadillas/cheese/ peppers Noodles/chicken/ vegetables Lasagne/salad Wholegrain toast/eggs/ avocado Greek yogurt/fruit/nuts	2 small eggs 300ml low fat milk 30g low fat cheese 200ml carton of yogurt 35g lean beef, pork ,lamb 40g lean chicken 50g grilled or canned fish 150g kidney beans or lentils 60g nuts or seeds 120g tofu

Nutrition

A healthy diet with good food variety matched with insulin and regular activity is important for diabetes management. Good diabetes management should remain top priority and accurate carbohydrate counting matched to insulin should be mastered before applying sports nutrition principles.

Eating regular, low glycaemic index (GI) meals with adequate protein, healthy fats and colourful non-starchy vegetables in appropriate portions can help keep blood glucose levels consistent and stable. This will also ensure all nutrients are consumed to maintain health, performance and recovery. In general, a pre-activity meal consumed 2-4 hours prior to exercise should contain carbohydrates, some protein and adequate fluid for hydration. This meal should be low in fat and fibre to reduce the risk of cramping during activity.

A higher GI carbohydrate containing snack may need to be consumed prior to commencing exercise. Consuming carbohydrate is generally not needed when exercise is less than 30 minutes duration. To prevent going low and / or improve exercise performance, you should aim to consume small amounts of carbohydrate every hour during exercise greater than 60 minutes duration.

The goals for the post-exercise meal should be to replenish used stores of carbohydrate, repair damaged muscles (protein) and rehydrate (water) to restore fluids lost from sweating during exercise.

Sports Supplements

There is minimal evidence on using protein or other nutritional supplements to support athletic performance in adolescents. Sports supplement are not regulated and can be contaminated with banned performance-enhancing substances.

It is best to meet your protein requirements through natural foods. Building muscle requires resistance training, good nutrition and most importantly good glucose control.

Top tips for building muscle

- Prioritise glucose control.
- Consume enough calories, carbohydrate and protein.
- Protein intake of 1.7-2g/kg body weight is sufficient to build muscle.
- Spread your protein intake across the day, each meal should include some protein.
- Eat carbohydrate and protein within 1-2 hours of finishing a training session.

Online Resources

www.runsweet.com

www.digibete.org

www.jdrf.org
Exercise

Contact Details

Aisling Egan Diabetes Advanced Nurse Practitioner
Diabetes Nurses 014096399

Grace Power Clinical Specialist Dietitian in Diabetes
Diabetes Dietitian 014096809

Administration 014282819

Authors: Aisling Egan, Grace Power
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