

# DIABETES ACTION PLAN 2021 SCHOOL SETTING

Use in conjunction with Diabetes Management Plan. This plan should be reviewed every year.

## Insulin pump

STUDENT'S NAME

\_\_\_\_\_

\_\_\_\_\_

DATE OF BIRTH GRADE / YEAR

\_\_\_\_\_

\_\_\_\_\_

NAME OF SCHOOL

\_\_\_\_\_

\_\_\_\_\_

**INSULIN** The insulin pump continually delivers insulin. The pump will deliver insulin based on carbohydrate food amount and BGL entries.

- Hybrid closed loop (read and respond to pump commands)

**Pump button pushing:**

- independently
- with supervision
- with assistance

**THIS STUDENT IS WEARING**

- Continuous Glucose Monitoring (CGM)
- Flash Glucose Monitoring (FGM)

**BLOOD GLUCOSE LEVEL (BGL) CHECKING TIMES**

**BGL check should occur where the student is at the time it is required**

- Before main meal
- Anytime hypo is suspected
- Confirm low or high sensor glucose reading
- Before physical education / sport
- Before exams or tests

**PHYSICAL EDUCATION (PE) / SPORT**

- Some students **MAY** require a BGL check before PE/sport.
- Vigorous activity **should not** be undertaken if BGL is greater than or equal to 15.0 **and** blood ketones are greater than or equal to 0.6.

**PARENT / CARER NAME** \_\_\_\_\_

**CONTACT NO.** \_\_\_\_\_

**DIABETES TREATING TEAM** \_\_\_\_\_

**CONTACT NO.** \_\_\_\_\_

**DATE PLAN CREATED** \_\_\_\_\_

### LOW Hypoglycaemia (Hypo)

Blood Glucose Level (BGL) less than **4.0 mmol/L**

**SIGNS AND SYMPTOMS** Pale, headache, shaky, sweaty, dizzy, drowsy, changes in behaviour

**Note: Check BGL if hypo suspected**

**Symptoms may not always be obvious**

**DO NOT LEAVE STUDENT ALONE  
DO NOT DELAY TREATMENT**

#### MILD

**Student conscious**  
(Able to eat hypo food)

**Step 1: Give fast acting carbohydrate**  
e.g. \_\_\_\_\_

**Step 2: Recheck BGL in 15 mins**  
If BGL **less than** 4.0 repeat **Step 1**  
If BGL **greater than** or equal to 4.0, go to **Step 3**

**Step 3:**  
If starting BGL between **2.0-4.0**  
**No** follow up slow acting carbohydrate required

**Step 3:**  
If starting BGL **less than 2.0**  
**Give slow acting carbohydrate**  
e.g. \_\_\_\_\_

#### SEVERE

**Student drowsy / unconscious**  
(Risk of choking / unable to swallow)

**First Aid DRSABCD**  
Stay with student

**CALL AN AMBULANCE  
DIAL 000**

**Contact parent/carer**  
when safe to do so

### HIGH Hyperglycaemia (Hyper)

Blood Glucose Level (BGL) greater than or equal to **15.0 mmol/L** is well above target and requires additional action

**SIGNS AND SYMPTOMS** Increased thirst, extra toilet visits, poor concentration, irritability, tiredness

**Note: Symptoms may not always be obvious**

**Check blood ketones**

Blood ketones greater than or equal to **0.6 mmol/L** requires immediate treatment

**Blood ketones less than 0.6**

- Enter BGL into pump
- Accept Correction bolus
- 1-2 glasses water per hour; extra toilet visits may be required
- Recheck BGL in 2 hours

**BGL less than 15.0 and ketones less than 0.6**  
No further action

**BGL still greater than or equal to 15.0 and ketones less than 0.6**  
Potential line failure

**Blood ketones greater than or equal to 0.6**

**POTENTIAL LINE FAILURE**

- Will need injected insulin and line change
- This is the parent/carer responsibility or student (if they have the required insulin pump skills)

If unable to contact parent/carer  
**CALL AN AMBULANCE  
DIAL 000**

**IF UNWELL (E.G. VOMITING), CONTACT PARENT/CARER TO COLLECT STUDENT**

Use in conjunction with Diabetes Action Plan. This plan should be reviewed every year.

STUDENT'S NAME \_\_\_\_\_ GRADE / YEAR \_\_\_\_\_

## RESPONSIBLE STAFF

School staff who have voluntarily agreed to undertake training and provide support with diabetes care to the student.

STAFF MEMBER	GLUCOSE CHECKING	INSULIN PUMP

## INSULIN PUMP

The student wears an insulin pump that continually delivers insulin.

Insulin pump model: \_\_\_\_\_

Is supervision/assistance required for pump button pushing?  Yes  No

If yes, the responsible staff need to:

Remind  Observe  Enter information and button push

Hybrid Closed Loop Pump model: \_\_\_\_\_

Read and respond to pump commands. Refer to Appendix for further details.

**A Medication Authority Form is required if school staff are required to administer / supervise insulin given via the pump.**

## STUDENT INSULIN PUMP SKILLS

Able to independently count carbohydrate foods  Yes  No (Parent/carer will label all food)

Able to enter blood glucose levels (BGL) and carbohydrate grams into pump  Yes  No (Adult assistance required)

Able to do a 'Correction Bolus'  Yes  No (Adult assistance required)

Able to disconnect & reconnect pump if needed  Yes  No (Adult assistance required)

Restart pump manually  NA  Yes  No (Adult assistance required)

Able to prepare and insert a new infusion set if needed  Yes  No (Contact parent/carer)

Give an insulin injection if needed  Yes  No (Adult assistance required)

Able to troubleshoot pump alarms and malfunctions  Yes  No (Contact parent/carer)

# BLOOD GLUCOSE LEVEL (BGL) CHECKING

## Target range for blood glucose levels (BGLs): 4 – 7 mmol/L

- BGL results outside of this target range are common.
- **BGL check should occur where the student is at the time it is required.**
- **The student should always wash and dry their hands before doing the BGL check.**

Blood glucose levels will vary day-to-day and be dependent on several factors such as:

- Insulin Dose
- Excitement / stress
- Age
- Growth spurts
- Type/quantity of food
- Level of activity
- Illness / infection

Is the student able to do their own blood glucose check independently?

Yes  No

If NO, the responsible staff member needs to

Do the check  Assist  Observe  Remind

### TIMES TO CHECK BGLS (tick all those that apply)

- Anytime hypo suspected  Before snack  Before lunch  
 Before activity  Before exams/tests  When feeling unwell  
 Beginning of after- school care session  
 Other times – please specify \_\_\_\_\_  
\_\_\_\_\_

- Further action is required if BGL is **less than 4.0 mmol/L** or **greater than or equal to 15.0 mmo/L**. Refer to Diabetes Action Plan.
- If the monitor reads '**LO**' this means the BGL is too low to be measured by the monitor — follow the hypoglycaemia (Hypo) treatment on Diabetes Action Plan.
- If the monitor reads '**HI**' this means the BGL is too high to be measured by the monitor — follow hyperglycaemia (Hyper) treatment on Diabetes Action Plan.

# SENSOR GLUCOSE (SG) MONITORING

The student is wearing

**Continuous Glucose Monitor (CGM)**

Model: \_\_\_\_\_

**Flash Glucose Monitor (FGM)**

Freestyle Libre

- CGM and FGM consist of a small sensor that sits under the skin and measures glucose levels in the fluid surrounding the cells.
- These devices are not compulsory management tools unless the student is on a Hybrid Closed Loop pump.
- With CGM, a transmitter sends data to either a receiver, phone app or insulin pump.
- With FGM, the device will only give a glucose reading when the sensor disc is scanned with a reader or phone app.
- A sensor glucose (SG) reading can differ from a finger prick blood glucose reading during times of rapidly changing glucose levels e.g. eating, after insulin administration, during exercise.
- Therefore, a SG reading less than \_\_\_\_\_ or above \_\_\_\_\_ **must** be confirmed by a finger prick blood glucose check.

**Hypo treatment is based on a blood glucose finger prick result.**

## ALARMS

- Alarms will be  **ON**  **OFF**
- If "on" the device will alarm if sensor glucose is low or high.
- Currently FGM does not have alarm settings.

**ACTION:** Check finger prick blood glucose level (BGL) and follow Diabetes Action Plan for treatment.

## LOW GLUCOSE SUSPEND

Some insulin pumps may be programmed to **STOP** insulin delivery at a **low** sensor glucose.

The student has low glucose suspend activated:  Yes  No

**ACTION:** For any **low alert** a finger prick blood glucose check is required. If BGL **less than 4.0 mmol/L**, treat hypo as per Diabetes Action Plan.

*continued...*

## USE AT SCHOOL

- Staff are not expected to do more than the current routine diabetes care as per the student's Diabetes Action and Management plans.
- Staff do not need to put CGM or FGM apps on their computer, smart phone or carry receivers .
- Parents/carers are the primary contact for any questions regarding CGM/FGM use.
- Some CGM/FGM devices can be monitored remotely by family members. They should only contact the school if they foresee an emergency.
- **If the sensor/transmitter falls out, staff to do finger prick blood glucose checks.**
- The sensor can remain on the student during water activities.

# LOW BLOOD GLUCOSE LEVELS (Hypoglycaemia / Hypo)

Follow the student's Diabetes Action Plan **if BGL less than 4.0 mmol/L.**

**Mild hypoglycaemia is common.**

Mild hypoglycaemia can be treated by using the student's hypo supplies.

HYPO SUPPLIES LOCATED: \_\_\_\_\_

### HYPO TREATMENT

FAST ACTING CARBOHYDRATE FOOD	AMOUNT TO BE GIVEN

SLOW ACTING CARBOHYDRATE FOOD only required if starting BGL less than 2.0 mmol/L	AMOUNT TO BE GIVEN

- If the student requires more than 2 consecutive fast acting carbohydrate treatments, as per their Diabetes Action Plan, call the student's parent/carer. Continue hypo treatment if needed while awaiting further advice.
- **DO NOT give an insulin bolus for this treatment.**
- All hypo treatment foods should be provided by the parent/carer.
- Ideally, packaging should be in serve size bags or containers and labelled as **fast acting carbohydrate** food and **slow acting carbohydrate** food.

If the student is having more than 3 episodes of low BGLs at school in a week, make sure that the parent/carer is aware.

## SEVERE HYPOGLYCAEMIA (HYPO) MANAGEMENT

**Severe hypoglycaemia is not common.**

Follow the student's Diabetes Action Plan for any episode of severe hypoglycaemia.

**DO NOT** attempt to give anything by mouth to the student or rub anything onto the gums as this may lead to choking.

If the school is located more than **30 minutes** from a reliable ambulance service, then staff should discuss Glucagon injection training with the student's Diabetes Treating Team.

## HIGH BLOOD GLUCOSE LEVELS (Hyperglycaemia / Hyper)

- Although not ideal, BGLs above target range are common.
- **If BGL is 15.0 mmol/L or more**, follow the student's Diabetes Action Plan.
- If the student is experiencing frequent episodes of high BGLs at school, notify their parent/carer.

## KETONES

- Ketones occur most commonly when there is not enough insulin in the body.
- Ketones are produced when the body breaks down fat for energy.
- Ketones can be dangerous in high levels.

### Check blood ketone level if:

- Student is unwell **or**
- BGL is above 15.0 mmol/L

If ketones are **more than 0.6 mmol/L**, follow action for ketones on the student's Diabetes Action Plan.

## EATING AND DRINKING

- The student will need to have an insulin bolus from the insulin pump **before** carbohydrate foods are eaten.
- The insulin dose will be determined by the pump based on the grams of carbohydrate food they will be eating and the current glucose level.
- For some students, all carbohydrate food should be clearly labelled by the parent/carer with carbohydrate amount in grams.
- It is not the responsibility of school staff to count carbohydrates, although they may need to assist the student to add up the food amounts that they wish to eat.
- Some students will require supervision to ensure all food is eaten.
- No food sharing.
- Seek parent/carer advice regarding foods for school parties/celebrations.
- Always allow access to drinking water and toilet (high glucose levels can cause increased thirst and extra toilet visits).

**Does the student have coeliac disease?**  No  Yes\*

\*Seek parent/carer advice regarding appropriate food and hypo treatments.

## PHYSICAL ACTIVITY

A blood glucose monitor and hypo treatment should always be with the student.

- Some students may require a blood glucose level check before physical activity.
- Physical activity **may cause glucose levels to go high or low.**
- Some students MAY require slow acting carbohydrate food before every 30 minutes of planned physical activity or swimming.

■ ACTIVITY FOOD REQUIRED. LOCATED: \_\_\_\_\_

### ACTIVITY FOOD

CARBOHYDRATE FOOD TO BE USED	AMOUNT TO BE GIVEN

- Physical activity should not be undertaken **if BGL less than 4.0 mmol/L.** Refer to the Diabetes Action Plan for hypo treatment.
- Vigorous activity should **not** be undertaken if **BGL is greater than or equal to 15.0 mmol/L and blood ketones are greater than or equal to 0.6 mmol/L.** Refer to [Diabetes Action plan.](#)
- **Do not enter the BGL into the pump within 1 hour of completing activity.**
- If lunch occurs immediately after physical activity, only enter the amount of carbohydrate food to be eaten into the pump.
- Disconnect the pump for vigorous activity/swimming.\*
- **The student should not be disconnected from the pump for more than 90 minutes.**

\*Extra details in Hybrid Closed Loop Insulin Pump Appendix.

## EXCURSIONS / INCURSIONS

It is important to plan for extracurricular activities.

Consider the following:

- Ensure blood glucose monitor, blood glucose strips, blood ketone strips, hypo and activity food are readily accessible.
- Plan for meal and snack breaks.
- Always have hypo treatment available.



# CAMPS

It is important to plan for school camps and consider the following:

- Parents/carers need to be informed of any school camps at the **beginning of the year**.
- Parents/carers should request a **Camp Diabetes Management Plan** from the Diabetes Treating Team who will require at least 4 weeks' notice to prepare the plan.
- Parents/carers will need a copy of the camp menu and activity schedule.
- At least 2 responsible staff attending the camp require training to be able to support the student on camp.
- School staff will need to discuss any training needs at least 4 weeks before the camp with the student's parents/carers or Diabetes Treating Team.
- If the camp location is more than **30 minutes** from a reliable ambulance service, **Glucagon injection training is recommended**.

# EXAMS

- BGL should be checked before an exam.
- BGL should be greater than 4.0 mmol/L before exam is started.
- Blood glucose monitor and blood glucose strips, hypo treatments and water should be available in the exam setting.
- Continuous Glucose Monitoring (CGM) or Flash Glucose Monitoring (FGM) devices and receivers or smart phones should be available in the exam setting.
- Extra time will be required if a hypo occurs or for toilet privileges.

## APPLICATIONS FOR SPECIAL CONSIDERATION

### National Assessment Program Literacy and Numeracy (NAPLAN)

Applies to Grade 3, Grade 5, Year 7, Year 9. Check National Assessment Program website – Adjustment for student with a medical condition for further information.

### Tasmanian Certificate of Education (TCE)

Should be lodged at the beginning of Year 11 and 12. Check the Office of Tasmanian Assessment, Standards & Certification (TASC) reasonable adjustment requirements.

## DAILY EQUIPMENT CHECKLIST

### Supplied by the parent/carer

- Finger prick device
- Blood glucose monitor
- Blood glucose strips
- Blood ketone strips
- Sharps container
- Hypo food
- Activity food
- Infusion sets and lines
- Reservoirs
- Cartridges
- Inserter (if applicable)
- Insulin pen and pen needles
- Batteries (for insulin pump / blood glucose monitor)
- Charging cable (for insulin pump)
- Student use
- Parent/carer use
- Student use
- Parent/carer use
- Student use
- Parent/carer use
- Student use
- Parent/carer use
- Student use
- Parent/carer use

## GLOSSARY OF TERMS

### COMMON INSULIN PUMP TERMINOLOGY

**Basal** Background insulin delivered continuously.

**Bolus** Insulin for food delivered following entry of BGL and carbohydrate food amount to be eaten.

**Cannula** A tiny plastic or steel tube inserted under the skin to deliver insulin. Held in place by an adhesive pad.

**Correction bolus** Extra insulin dose given to correct an above target BGL and/or to clear ketones.

**Insulin pump also known as continuous subcutaneous insulin infusion (CSII)** Small battery operated, computerised device for delivering insulin.

**Line or Tubing** The plastic tubing connecting the pump reservoir/cartridge to the cannula.

**Line failure** Disruption of insulin delivery due usually to line kinking or blockage.

**Low Glucose Suspend** Pump stops delivery of insulin if glucose sensor detects a low glucose level or low glucose is about to occur.

**Reservoir/Cartridge** Container which holds the insulin within the pump.

NAME \_\_\_\_\_

DATE PLAN CREATED \_\_\_\_\_

# AGREEMENTS

## PARENT/CARER

- I have read, understood and agree with this plan.
- I give consent to the school to communicate with the Diabetes Treating Team about my child's diabetes management at school.

NAME

\_\_\_\_\_  
FIRST NAME (PLEASE PRINT)

\_\_\_\_\_  
FAMILY NAME (PLEASE PRINT)

\_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
DATE

## SCHOOL REPRESENTATIVE

- I have read, understood and agree with this plan.

NAME

\_\_\_\_\_  
FIRST NAME (PLEASE PRINT)

\_\_\_\_\_  
FAMILY NAME (PLEASE PRINT)

ROLE  Principal

Vice Principal

\_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
DATE

## DIABETES TREATING MEDICAL TEAM

NAME

\_\_\_\_\_  
FIRST NAME (PLEASE PRINT)

\_\_\_\_\_  
FAMILY NAME (PLEASE PRINT)

\_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
DATE

\_\_\_\_\_  
HOSPITAL NAME