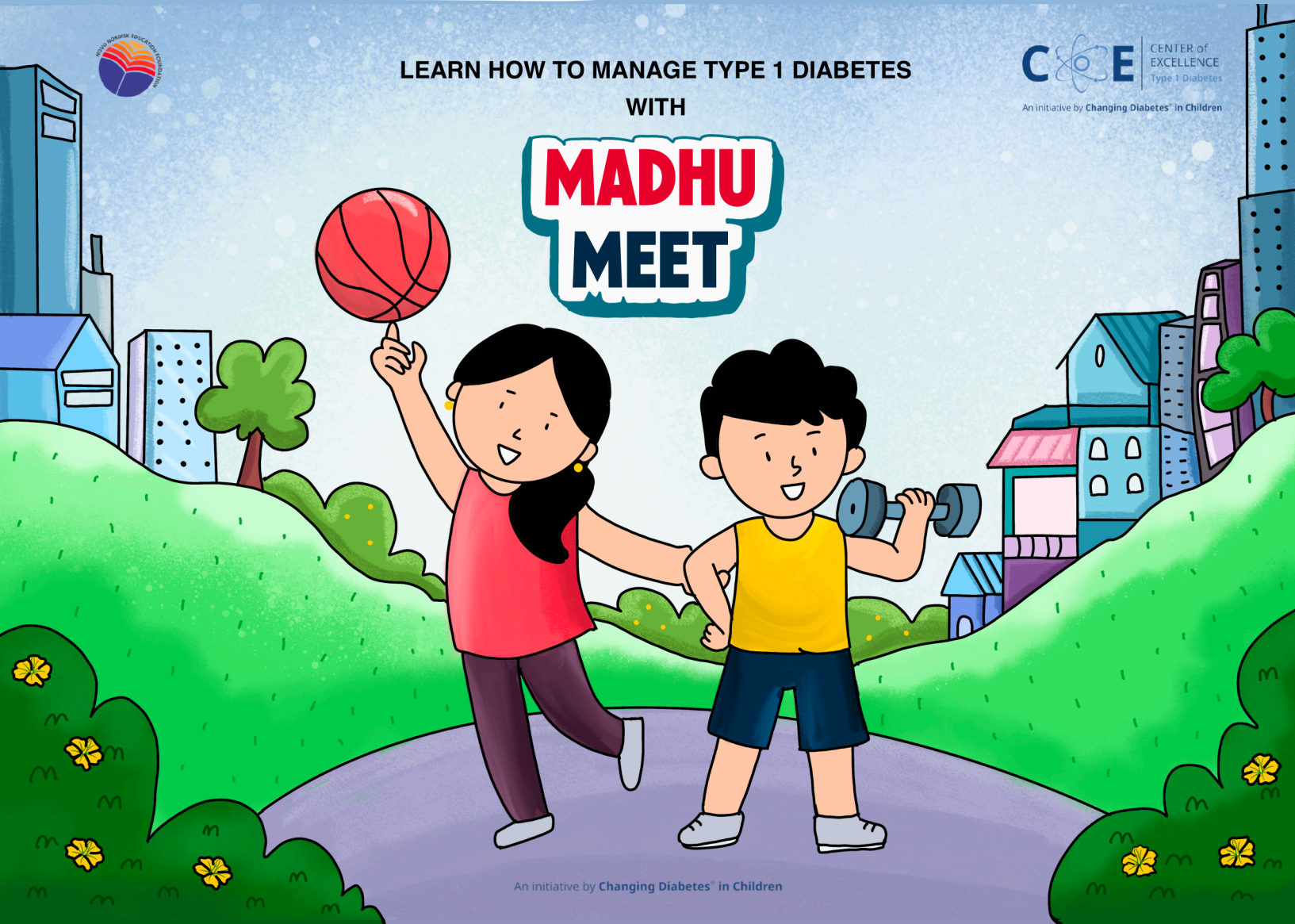




# LEARN HOW TO MANAGE TYPE 1 DIABETES WITH

**C&E** CENTER of  
EXCELLENCE  
Type 1 Diabetes  
An initiative by Changing Diabetes® in Children

## MADHU MEET



An initiative by Changing Diabetes® in Children

# INDEX

## LEARNING POINTS

- Understanding Type 1 Diabetes
- Blood Glucose Monitoring
- What food to eat ?
- Hypoglycaemia and how to recognise it?
- Hyperglycaemia and how to treat it?
- Storage of Insulins
- Principles of Insulin Injections
- Giving an Insulin Injection



Hi, I'm  
Meet



Hi, I'm  
Madhu

# What is Type 1 Diabetes?

*I have type 1 diabetes  
My body does not  
make insulin  
So I need to inject it.<sup>1</sup>*

*I can manage  
Diabetes with:*



**Insulin**



**Diet**



**Exercise**



**Monitoring**

Did you know ?

**Children can also  
develop diabetes?**



## SIGNS & SYMPTOMS<sup>1</sup> OF TYPE I DIABETES



WEIGHT LOSS WITH  
CONSTANT HUNGER



FREQUENT URINATION



VERY TIRED ALL  
THE TIME



EXCESSIVE THIRST

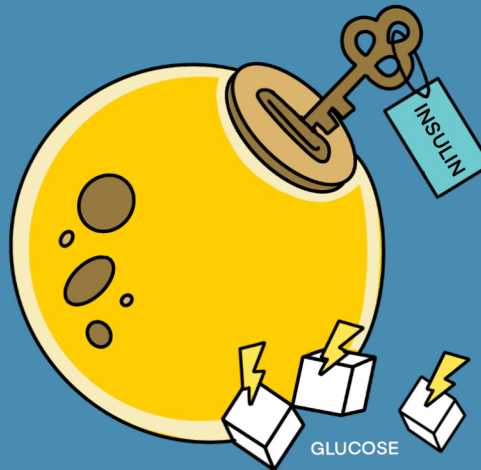
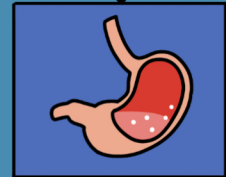


# Why do I need insulin ?<sup>1</sup>



We need Insulin  
To get energy from the  
food we eat

The food we eat is  
broken down into  
glucose



Insulin opens the  
doors of cells so that  
glucose can enter and  
be used as energy

# Where should I inject<sup>1</sup> my insulin ?

3 places on  
Front side



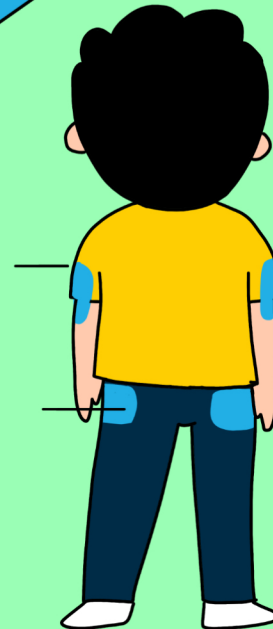
**FRONT**

Upper Lateral arm

Abdomen

Front of thigh /  
Lateral thigh

2 places on  
back side



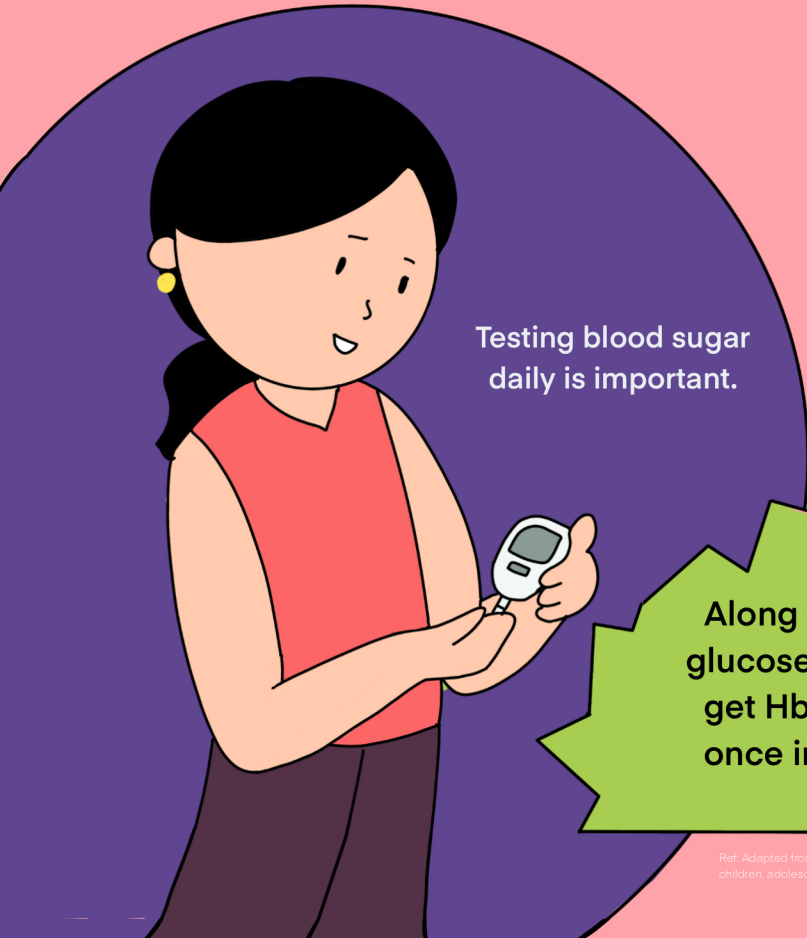
Lateral aspect  
of arm

The upper quadrant  
of the buttocks

**BACK**

Rotation of injection sites are  
important also within the same area  
of injection

# Monitoring<sup>1</sup> blood glucose is essential



Testing blood sugar daily is important.

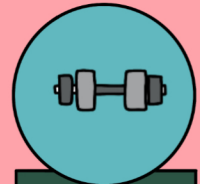
Blood sugar in normal range indicates good health and that



Insulin



Diet



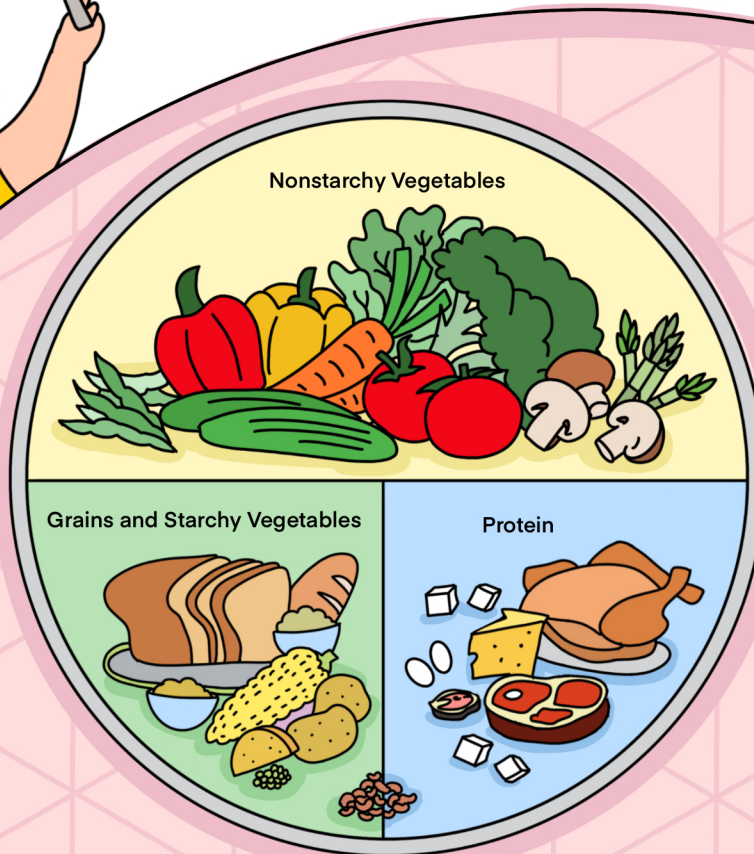
Exercise

regimens are followed well.

Along with blood glucose monitoring get HbA1C done, once in 3 months

Always remember to take glucometer and diabetes diary to the clinic

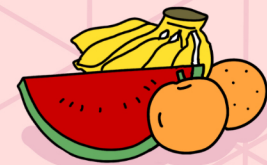
I make healthy food choices to  
manage my diabetes<sup>1</sup>



Low fat milk and  
Yogurt



Healthy fats



Fruit





Monitor<sup>1</sup>  
Sugar before  
and after any  
vigorous  
exercise

## PHYSICAL ACTIVITY IS ESSENTIAL<sup>1</sup>

Being active and exercising are essential for  
children with type 1 diabetes

Choose what u like : Walking, playing, dancing or yoga



## Low blood sugar (Hypoglycaemia) and how to recognise it?

You might have hypoglycaemia if you have the following :



**Tiredness**



**Sweating**



**Extreme hunger**



**Loss of consciousness**



**Irritability**



**Dizziness & Trembling**

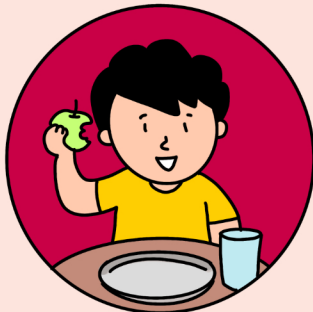
Very low blood sugar can lead to convulsions and coma

# Why do I get low blood sugar (Hypoglycaemia)<sup>1</sup> and how do I treat it?

## Common causes of Hypoglycaemia



*Extra insulin*



*Not eaten enough food*



*More physical Activity*

## TREATMENT<sup>1</sup>

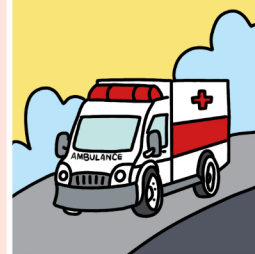


### 1. Consume

- 2 to 3 teaspoons of sugar (or)
- 3 to 5 hard candies or glucose tablets (or)
- 1/2 cup of regular fruit juice or cold drink



- ### 2. Recheck blood glucose after 15 minutes and retreat if needed or give 15 gm carbs to eat.



- ### 3. In severe cases take the child to nearest hospital.

## How to recognise high blood sugar (hyperglycaemia)<sup>1</sup>?



You probably have hyperglycaemia if you feel:



Thirsty all  
the time



Need to  
urinate a lot



Dizzy



Tired all the  
time



Blurry vision



Dry mouth

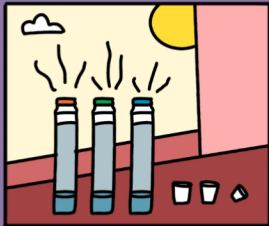
*High blood sugar levels continuously can lead to Diabetic ketoacidosis and other long term complications*



# Why do i get High blood sugar (hyperglycaemia) and how to treat it?



*Missed an insulin dose*



*Insulin that was ineffective*



*Eaten too much food*



*Less physical activity*



*Have infection or fever*

## TREATMENT<sup>1</sup>

Most cases of hyperglycaemia are easily treated

Correction dose of **Rapid acting insulin**

Measure your blood sugar after 2-4 hrs

If your blood sugar is still high

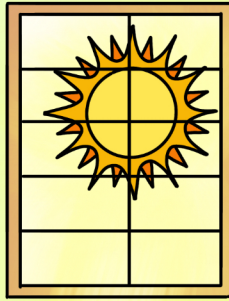
You can add correction dose again and consult your doctor.



# Storage<sup>1</sup> of insulin



Refrigerate between  
2-8°C<sup>1</sup>



Do expose to  
sunlight (extreme  
hot above 30°C)

While traveling carry  
insulin with cool gel  
pack in your hand  
bag



Cool gel  
Pack

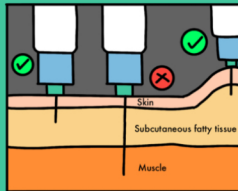
You can also store  
insulin in cool mud  
pot with little water



*Only in case of unavailability of refrigerator*

# PRINCIPLES<sup>1</sup> OF INSULIN INJECTION

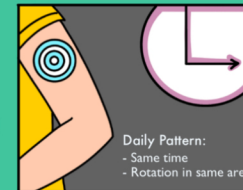
1. Always inject into the subcutaneous fatty tissue



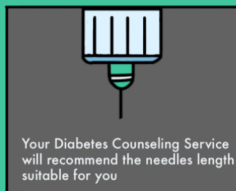
2. The Injection area



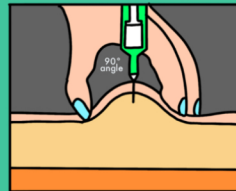
3. Changing injection areas



4. The correct needle length



5. The Correct injection technique



6. Change the site after each injection



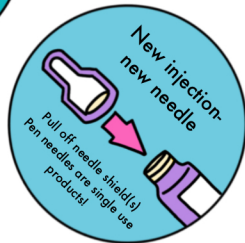
New Injection site should be least 1 to 2 cm apart from Previous site

# GIVING AN INSULIN INJECTION<sup>1</sup>

## 1. Preparation



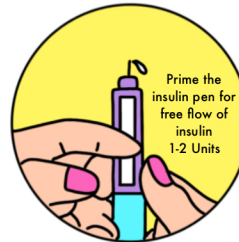
## 2. Screw on the pen needle onto the insulin pen



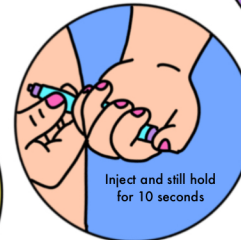
## 3. Thorough mixing of NPH



## 4. Control the functioning of the insulin pen and removal of bubbles



## 5. Giving the injection

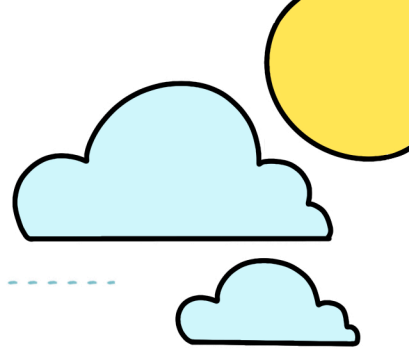


## 6. Completing the injection

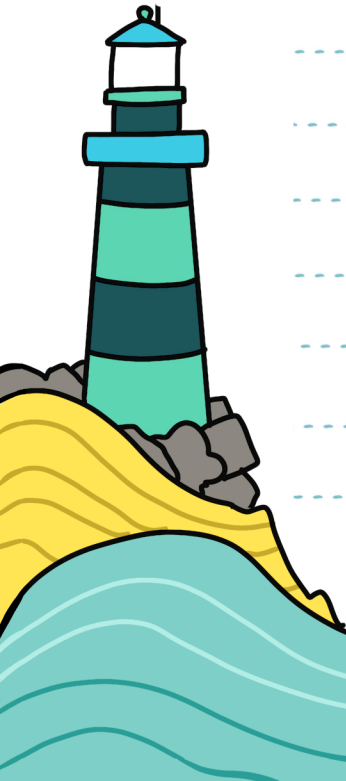




# *Notes*



A series of ten horizontal dashed lines for writing notes, spanning the width of the page.



# Say hi to Betty and her Besties

Betty has type 1 diabetes. In five video episodes Betty shows how she deals with her diabetes while still having fun with her friends.

Watch the episodes by scanning the below QR codes



Episode 1  
Why do I need insulin?



Episode 2  
How to inject insulin with a syringe?

Episode 3  
How to inject insulin with a pen?



Episode 4  
How much insulin do I take?



Episode 5  
Low blood sugar and how to recognize it

