



TYPE 2 DIABETES PARENT HANDBOOK

TABLE OF CONTENTS

01

What is Type II Diabetes?

02

How to recognize early symptoms in children

03

What to do when your child begins showing symptoms of Type II Diabetes

04

Ways to prevent Type II Diabetes

05

Tips on taking care of children with Diabetes

06

How to live with Diabetes and manage the conditions

07

References



WHAT IS TYPE II DIABETES?

WHAT IS TYPE II DIABETES?

Type II Diabetes is a condition that is a result of the body not properly using and regulating sugar. As a result, blood glucose levels rise and too much sugar remains in the blood. This can lead to a variety of issues if left unchecked such as circulatory, nervous, and immune disorders.

1



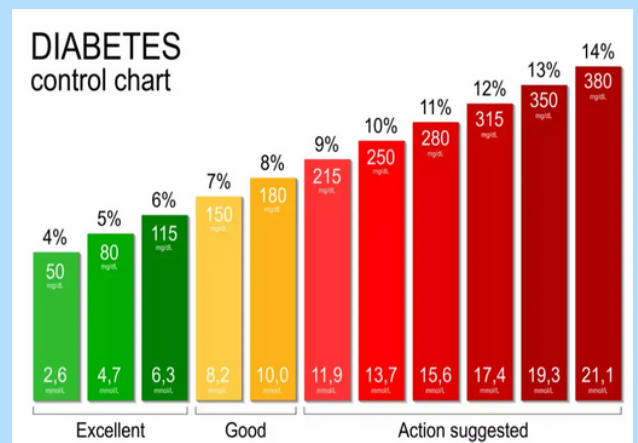
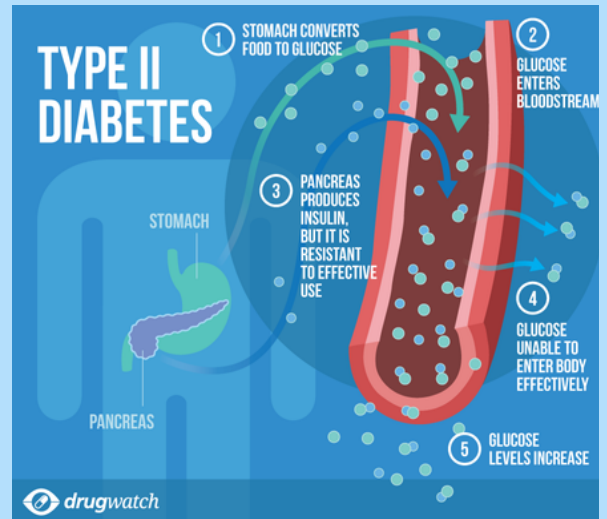
pn

WHAT HAPPENS TO THE PANCREAS WITH TYPE II DIABETES?

Individuals with Type II Diabetes can have multiple issues when it comes to proper function of the pancreas.²

The pancreas is an organ in the body that is responsible for digesting food and controlling blood sugar by releasing insulin.²

With Type II, the pancreas usually does not produce enough insulin. The cells can also respond poorly to insulin and might not absorb the necessary sugar that has remained in the bloodstream.²



FASTING	
Normal for person without diabetes	70-99 mg/dl (3.9-5.5 mmol/L)
Official ADA recommendation for someone with diabetes	80-130 mg/dl (4.4-7.2 mmol/L)
2 HOURS AFTER MEALS	
Normal for person without diabetes	Less than 140 mg/dl (7.8 mmol/L)
Official ADA recommendation for someone with diabetes	Less than 180 mg/dl (10.0 mmol/L)
HBA1C	
Normal for person without diabetes	Less than 5.7 %
Official ADA recommendation for someone with diabetes	7.0 % or less

The charts above indicate normal and abnormal blood sugar levels, as well as ranges that are normal for those already diagnosed with diabetes, which are relatively the same for children with and without diabetes.³

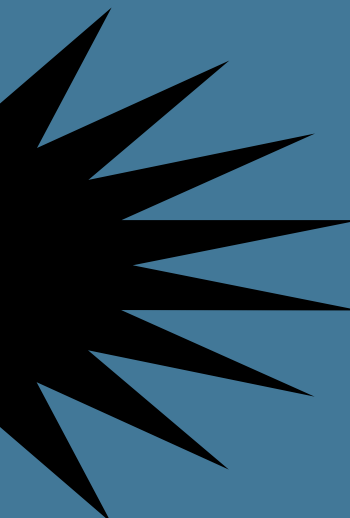
Chapter 1 References

1. Mayo Foundation for Medical Education and Research. (2023, March 14). Type 2 diabetes. MayoClinic. Retrieved 3n.d., from <https://www.mayoclinic.org/diseases-conditions/type-2-diabetes/symptoms-causes/syc-20351193>
2. WebMD. (n.d.). Diabetes and your pancreas: What's the link? WebMD. Retrieved April 30, 2023, from <https://www.webmd.com/diabetes/diabetes-and-your-pancreas>
3. Chandrashekara, D. A. S. (2022, September 3). Chart of normal blood sugar levels for adults with diabetes age wise. Being. Retrieved April 30, 2023, from <https://www.breathewellbeing.in/blog/chart-of-normal-blood-sugar-levels-for-adults-with-diabetes/>



**HOW TO
RECOGNIZE
THE EARLY
SYMPTOMS IN
CHILDREN**

WHAT SHOULD I BE LOOKING FOR?



Type II diabetes symptoms can develop slowly, so it is important to pay attention to small signs. This allows you to catch any issues before it becomes serious. If you notice any of these symptoms, contact your child's pediatrician. ¹

- Increased thirst and urination
- Constant hunger
- Feeling fatigued more than normal
- Vision issues, such as blurriness
- Darkening of creases on the skin, especially around the armpits and groin
- Frequent skin infections
- Frequent bladder infections
- Unexpected weight loss
- Numbness and pins and needles feelings in the toes and fingers ^{1,2}



RISK FACTORS

Health elements that can increase the chances of developing Type II Diabetes

Symptoms can vary depending on the child, so it is important to take medical context into consideration. A family history of Type II diabetes can increase the risk of your child developing Type II diabetes. **3**

If your child has any of these genetic risk factors or if these risk factors are present in your family history, tell your pediatrician. This allows them to pay attention to potential warning signs and catch issues earlier. **1**

The majority of the factors listed here are genetic risk factors or other factors that cannot be controlled by behavior. However, it is important to be aware of how these factors could affect health. **2**

RISK FACTORS

- Weight
 - Low birth weight
- Race and Ethnicity
 - Black, Hispanic, Native American, and people of Asian descent are more likely to develop Type II Diabetes.
- Age
 - Type II diabetes tends to develop in adolescence, or early teens.
- Sex
 - Females are more likely to develop Type II Diabetes than males.

2,3

Chapter 2 References

1. Legner, L. (2022, January 6). Does my child have diabetes? OSF HealthCare Blog. Retrieved April 27, 2023, from <https://www.osfhealthcare.org/blog/does-my-child-have-diabetes/>
2. Mayo Foundation for Medical Education and Research. (2022, March 31). Type 2 diabetes in children. Mayo Clinic. Retrieved April 27, 2023, from <https://www.mayoclinic.org/diseases-conditions/type-2-diabetes-in-children/symptoms-causes/syc-20355318>
3. Stanford Medicine Children's health. Stanford Medicine Children's Health - Lucile Packard Children's Hospital Stanford. (n.d.). Retrieved April 27, 2023, from <https://www.stanfordchildrens.org/en/topic/default?id=type-2-diabetes-in-children-90-P01978>



**WHAT TO DO
WHEN YOUR
CHILD SHOWS
SIGNS OF TYPE
II DIABETES**

MAKE AN APPOINTMENT

Contact your pediatrician if your child shows any symptoms of type II Diabetes. They will be able to examine your child and do tests to determine the cause of the symptoms. If your child is diagnosed with diabetes or pre-diabetes, your pediatrician will help you develop a treatment plan that works best for your child. There are several different screening tests that your pediatrician may use based on the symptoms of your child. ²



FURTHER TESTING

After a physical examination of your child's symptoms, your child's pediatrician might recommend further testing.

RANDOM PLASMA GLUCOSE TEST

This test is done without any preparation beforehand, and is usually the first test done when determining if someone has diabetes. The medical provider will prick your child's finger and measure the current amount of blood sugar. If the blood sugar level is 200 mg/dL or higher, it is very likely that your child has diabetes. If the blood sugar is below that level further testing may be needed. **1**

HEMOGLOBIN A1C TEST

This test measures your child's glucose levels over two to three months. If your child has a blood sugar percentage over 6.5% that is an indicator of diabetes. **2**

FASTING BLOOD SUGAR TEST

For this test, your child will fast overnight, then their blood sugar will be measured. If they have a blood sugar level of 126 mg/dL or higher your provider will either call for a retest or diagnose them with diabetes and begin treatment plans. **4**

ORAL GLUCOSE TOLERANCE TEST

In this test, your child will fast overnight and have their glucose level taken. Then they will drink a sugary drink that will raise their glucose levels. Blood samples will be taken through finger pricks over two hours to see how their body breaks down glucose. A blood glucose level of 200 or higher suggests diabetes for this test. **3**

Chapter 3 References

1. Diagnosing type 2 diabetes. Patient Care at NYU Langone Health. (n.d.). Retrieved April 27, 2023, from <https://nyulangone.org/conditions/type-2-diabetes/diagnosis>
2. Centers for Disease Control and Prevention. (2023, February 28). Diabetes tests. Centers for Disease Control and Prevention. Retrieved April 27, 2023, from <https://www.cdc.gov/diabetes/basics/getting-tested.html>
3. Mayo Foundation for Medical Education and Research. (2023, March 14). Type 2 diabetes. Mayo Clinic. Retrieved April 27, 2023, from <https://www.mayoclinic.org/diseases-conditions/type-2-diabetes/diagnosis-treatment/drc-20351199>
4. Diagnosis. Diagnosis | ADA. (n.d.). Retrieved April 27, 2023, from <https://diabetes.org/diabetes/a1c/diagnosis>



WAYS TO PREVENT TYPE II DIABETES

WAYS TO PREVENT TYPE II DIABETES



5

TYPE 2 DIABETES IS A CHRONIC CONDITION CHARACTERIZED BY HIGH BLOOD SUGAR LEVELS. HOWEVER, TYPE 2 DIABETES IS LARGELY PREVENTABLE THROUGH HEALTHY LIFESTYLE CHOICES AND INTERVENTIONS. IN THIS CHAPTER, WE WILL EXPLORE VARIOUS WAYS TO PREVENT TYPE 2 DIABETES, INCLUDING MAINTAINING A HEALTHY DIET, ENGAGING IN REGULAR PHYSICAL ACTIVITY, MAINTAINING A HEALTHY WEIGHT, AVOIDING SMOKING AND EXCESSIVE ALCOHOL CONSUMPTION, AND REGULAR HEALTH CHECK-UPS. BY IMPLEMENTING THESE PREVENTIVE MEASURES, INDIVIDUALS CAN SIGNIFICANTLY REDUCE THEIR RISK OF DEVELOPING TYPE 2 DIABETES AND LEAD A HEALTHIER, MORE FULFILLING LIFE. **3**



EXERCISE



1

Exercise is very important for for maintaining a strong and healthy lifestyle, but it is especially important for preventing Type II Diabetes. A good rule of thumb to exercising is to try and workout for around 3 hours each week.

Exercise regulates blood sugar levels and improves insulin sensitivity. When you exercise, your muscles use glucose for energy, which lowers the amount of glucose in your bloodstream. This effect can last for several hours after your workout, which can help prevent spikes in blood sugar levels. **6**

Exercise also promotes weight loss and weight maintenance, which is another important factor in preventing type 2 diabetes. Being overweight or obese is a significant risk factor for type 2 diabetes, and exercise can help individuals achieve and maintain a healthy weight. **6**

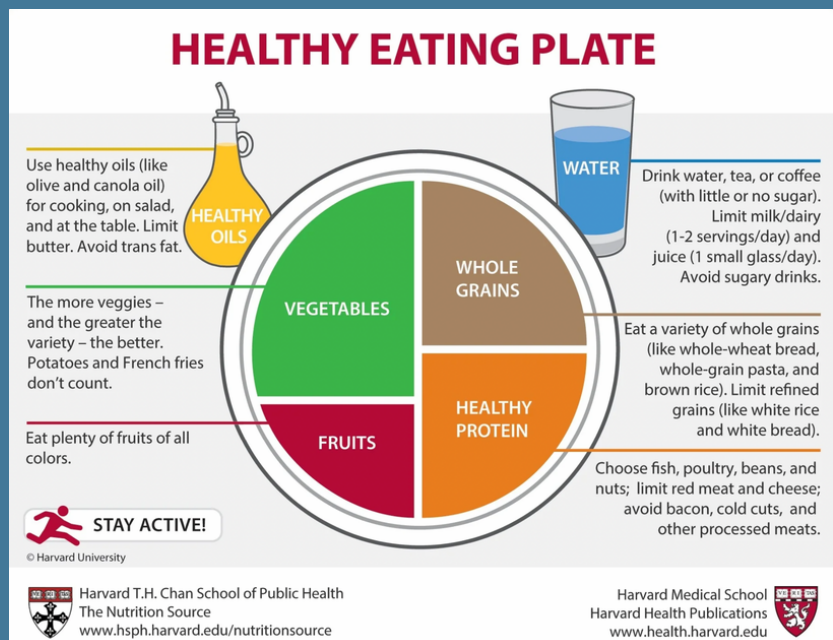
NUTRITION



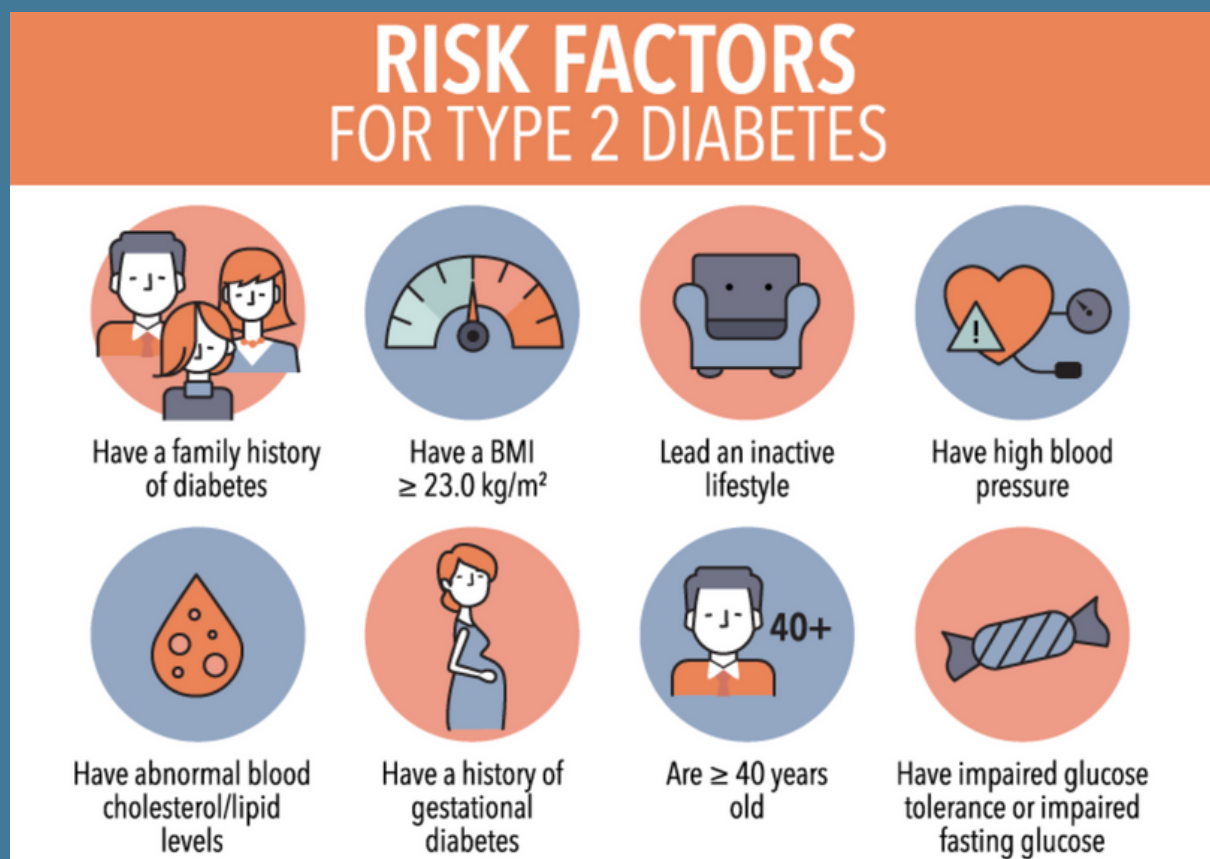
Nutrition is critical for health and development in all humans. A proper diet gives our bodies the energy and nutrients we need to pursue happy and healthy lives. More importantly, a proper nutrition diet helps prevent the onset of type II diabetes by stopping insulin resistance from occurring. 9

A diet that is high in fiber, low in saturated fats, and contains a variety of fruits, vegetables, whole grains, and lean proteins can help regulate blood sugar levels and prevent complications associated with diabetes. 7

To the right is a great diagram that shows the correct amount of foods and nutrients that should be consumed in every meal. It can be difficult to replicate exactly but it offers insight on how to start building a strong diet. 7



RISK FACTORS



It is important to understand that taking part in two or more risk factors does not automatically mean you will develop diabetes, but it is critical to know the actions that can increase the likelihood of onset. Additionally, many risk factors include genetic traits that we are born with. This means that many risk factors are out of our control. Which is why it is important to keep a strong diet and exercise often in order prevent diabetes from developing. The figure above illustrates all risk factors genetic and non-genetic and the list below contains the top non-genetic risk factors. 8

BELOW ARE THE TOP 5 NON-GENETIC RISK FACTORS FOR TYPE II DIABETES

1. **OBESITY:** BEING OVERWEIGHT OR OBESE IS ONE OF THE MOST SIGNIFICANT RISK FACTORS FOR TYPE 2 DIABETES. EXCESS WEIGHT CAN LEAD TO INSULIN RESISTANCE, MAKING IT HARDER FOR THE BODY TO REGULATE BLOOD SUGAR LEVELS.
2. **SEDENTARY LIFESTYLE:** LACK OF PHYSICAL ACTIVITY CAN INCREASE THE RISK OF DEVELOPING TYPE 2 DIABETES
3. **HIGH BLOOD PRESSURE AND CHOLESTEROL:** HIGH BLOOD PRESSURE AND HIGH CHOLESTEROL LEVELS CAN CONTRIBUTE TO THE DEVELOPMENT OF TYPE 2 DIABETES.
4. **SLEEP DISORDERS:** SLEEP DISORDERS, SUCH AS SLEEP APNEA, HAVE BEEN LINKED TO AN INCREASED RISK OF TYPE 2 DIABETES.
15. **SMOKING:** SMOKING INCREASES THE RISK OF DEVELOPING TYPE 2 DIABETES AND CAN MAKE IT HARDER TO MANAGE THE CONDITION. 2

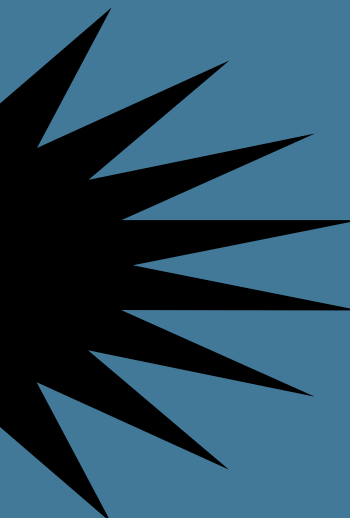
CHAPTER 4 REFERENCES

1. BENDER, D. (N.D.). 6 FITNESS TRENDS TO LOOK OUT FOR IN 2022. NASM. RETRIEVED APRIL 25, 2023, FROM [HTTPS://BLOG.NASM.ORG/FITNESS-TRENDS](https://blog.nasm.org/fitness-trends)
2. CENTERS FOR DISEASE CONTROL AND PREVENTION. (2022, APRIL 5). DIABETES RISK FACTORS. CENTERS FOR DISEASE CONTROL AND PREVENTION. RETRIEVED APRIL 25, 2023, FROM [HTTPS://WWW.CDC.GOV/DIABETES/BASICS/RISK-FACTORS.HTML](https://www.cdc.gov/diabetes/basics/risk-factors.html)
3. CENTERS FOR DISEASE CONTROL AND PREVENTION. (2022, DECEMBER 30). TYPE 2 DIABETES. CENTERS FOR DISEASE CONTROL AND PREVENTION. RETRIEVED APRIL 25, 2023, FROM [HTTPS://WWW.CDC.GOV/DIABETES/BASICS/TYPE2.HTML#:~:TEXT=TYPE%20%20DIABETES%20MOST%20OFTEN,ADULTS%20ARE%20ALSO%20DEVELOPING%20IT.](https://www.cdc.gov/diabetes/basics/type2.html#:~:text=type%20%20diabetes%20most%20often,adults%20are%20also%20developing%20it.)
4. HEALTHY EATING PLATE. THE NUTRITION SOURCE. (2023, JANUARY 31). RETRIEVED APRIL 25, 2023, FROM [HTTPS://WWW.HSPH.HARVARD.EDU/NUTRITIONSOURCE/HEALTHY-EATING-PLATE/](https://www.hsph.harvard.edu/nutritionsource/healthy-eating-plate/)
5. MAN RIDING A RED ROAD BIKE · FREE STOCK PHOTO - PEXELS. (N.D.). RETRIEVED APRIL 26, 2023, FROM [HTTPS://WWW.PEXELS.COM/PHOTO/MAN-RIDING-A-RED-ROAD-BIKE-5970279/](https://www.pexels.com/photo/man-riding-a-red-road-bike-5970279/)
6. SMITH, S. (2018, MARCH 29). THE 10 GOLDEN RULES OF FITNESS. ACTIVE.COM. RETRIEVED APRIL 25, 2023, FROM [HTTPS://WWW.ACTIVE.COM/FITNESS/ARTICLES/THE-10-GOLDEN-RULES-OF-FITNESS#:~:TEXT=IT'S%20RECOMMENDED%20THAT%20HEALTHY%20ADULTS,OF%20VIGOROUS%20EXERCISE%20EACH%20WEEK.](https://www.active.com/fitness/articles/the-10-golden-rules-of-fitness#:~:text=it's%20recommended%20that%20healthy%20adults,of%20vigorous%20exercise%20each%20week.)
7. TYPE 2 DIABETES DIET: WHAT TO EAT AND WHAT TO AVOID - ENDOCRINEWEB. (N.D.). RETRIEVED APRIL 26, 2023, FROM [HTTPS://WWW.ENDOCRINEWEB.COM/CONDITIONS/TYPE-2-DIABETES/TYPE-2-DIABETES-DIET](https://www.endocrineweb.com/conditions/type-2-diabetes/type-2-diabetes-diet)
8. WHAT IS DIABETES? WHAT ARE ITS TYPES? - PUBLIC HEALTH NOTES. (N.D.). RETRIEVED APRIL 26, 2023, FROM [HTTPS://WWW.PUBLICHEALTHNOTES.COM/WHAT-IS-DIABETES-WHAT-ARE-ITS-TYPES/](https://www.publichealthnotes.com/what-is-diabetes-what-are-its-types/)
9. WORLD HEALTH ORGANIZATION. (N.D.). NUTRITION. WORLD HEALTH ORGANIZATION. RETRIEVED APRIL 25, 2023, FROM [HTTPS://WWW.WHO.INT/HEALTH-TOPICS/NUTRITION#TAB=TAB_1](https://www.who.int/health-topics/nutrition#tab=tab_1)



**TIPS ON
TAKING CARE
OF CHILDREN
WITH
DIABETES**

HOW TO TAKE CARE OF YOUR CHILD WHO HAS TYPE II DIABETES



As a parent to a child who has Type II Diabetes, you have an important job to do for them. At all times you need to constantly check their blood sugar levels, help to administer their insulin, make sure your child eats the correct foods, and keeping their blood sugar in the healthy range.¹

TIPS ON HELPING YOUR CHILD WITH DIABETES³

- Stay on target with blood sugar tests
 - breathing exercises
 - letting them chose which finger to prick
 - helping them inject their insulin
- Eating healthy as a family
 - mealtime makeover²
- Monitoring their exercise
- Keep their school and teachers informed and updated
- Having an emergency plan

LIFESTYLE MODIFICATIONS

The top five things you can do as a parent to help your type II diabetic child⁴

BEING MORE ACTIVE

Exercise is good for everyone, no matter the age. However, the easiest thing you can do to help your child's health is to help them be more active. This can occur by being involved in sports, going to a park, simply going on a walk, etc.. Children need at least 60 minutes of activity a day, which will help your child's overall health and weight loss. Weight loss will help to decrease insulin resistance and allowing the insulin produced in your child's body to work more effectively.



CUTTING BACK ON SUGAR

Cutting back on sugar is one of the main tips to what your child should not eat. Try avoiding foods that are pure sugar, like soda and candy, as well as limiting sweet foods and deserts. Drinks like fruit juice are even high in sugar content so limiting those as well, will help to keep your child's blood sugar in the healthy range.

LIFESTYLE MODIFICATIONS CONTINUED

OFFER HEALTHY SNACKS

Around your house keep healthy snacks like fruits and vegetables and foods with high fiber like whole grains. Avoid processed foods like a bag of chips and fast food. ⁴



LIMITING SCREEN TIME

Screen time consists of watching television, being on a computers, tablet, smartphone, and playing video games. As a parent, limiting screen time will help to add more time for your child to get in their daily 60 minutes physical activity. ⁴



EATING DINNER AS A FAMILY

Eating dinner as a whole family should become your new goal. Eating together will help to alleviate distractions and will help you to focus on the food you are feeding your child and your child's appetite. If you don't eat at home as a family, the next best option would be to go to a restaurant. ⁴



HOW TO ADMINISTER INSULIN TO YOUR CHILD

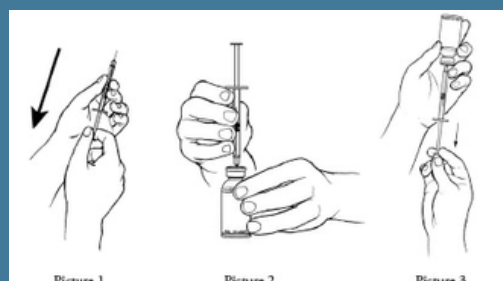


PREPARING AN INSULIN PEN

1. Calculate your child's insulin dose.
2. Wash your hands.
3. Read the label on the insulin pen to make sure you have the right pen.
4. Take the cap off of the pen. Use alcohol to clean the rubber seal on the end of the pen.
5. Remove paper tab from the pen needle.
6. Push the capped needle onto the pen. Tighten needle screening clockwise.
7. Pull off the outer needle shield. Save this shield. Pull off the inner needle shield and throw it away.
8. Dial 2 units by turning the dose knob to "2."
9. Point the pen needle upwards. Tap the pen so air moves to the top of pen.
10. With the needle pointing up, push the dose button until it stops. A stream of insulin should appear. If it does not, repeat steps 7 to 9. This is called priming the pen. This gets air out of the needle.
11. Dial the dose knob to the right number of insulin units that you need. You are now ready to give the injection.
12. After giving the injection, put the outer shield back on the needle. Unscrew the used needle, and throw it away.⁵

PREPARING AN INSULIN INJECTION BY SYRINGE

1. Calculate your child's insulin dose.
2. Wash your hands.
3. Read the label on the insulin bottle (vial) to make sure you have the right type of insulin.
4. Clean the top of the insulin vial with alcohol.
5. Take the white cap off of the bottom of the syringe.
6. Take the orange cap off of the needle top.
7. Pull air into the syringe equal to the amount of insulin that your child needs to take (picture 1).
8. Push the needle through the rubber stopper of the vial (picture 2). Inject the air into that vial.
9. With the needle still in the vial, turn the vial and syringe upside down. Be sure the tip of the needle is in the insulin. Draw up the amount of insulin you need to inject (picture 3).
10. Check the syringe for air bubbles. If bubbles are in the syringe, push the insulin back into the bottle of insulin. Draw up the needed amount of insulin again to inject.
11. Take the needle out of the bottle. You are now ready to give the injection.⁵



Picture 1

Picture 2

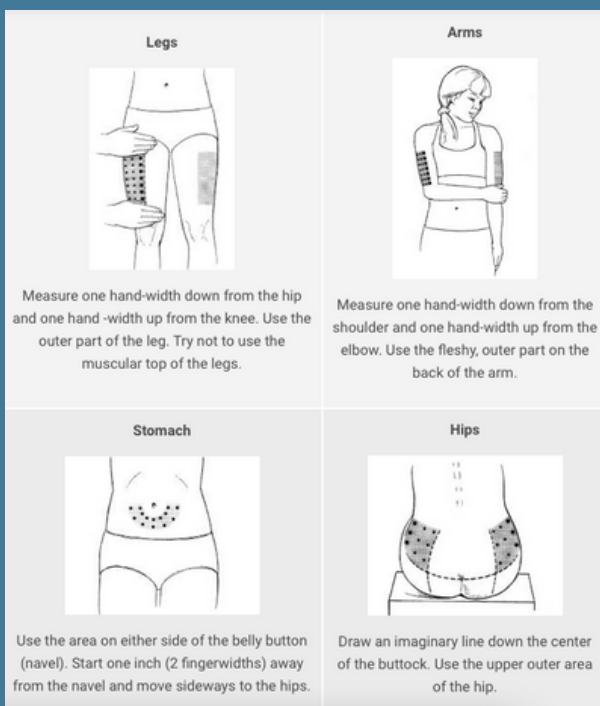
Picture 3

HOW TO ADMINISTER INSULIN TO YOUR CHILD CONTINUED



WHERE DO I GIVE MY CHILD THEIR INSULIN INJECTION?

You want to inject insulin in that fat layer of your child's skin. This kind of injection is called a subcutaneous injection and there are four areas on your child's body that you could use. These four areas include the legs, arms, stomach, and hips.⁵



HOW DO I GIVE MY CHILD THEIR INSULIN INJECTION?

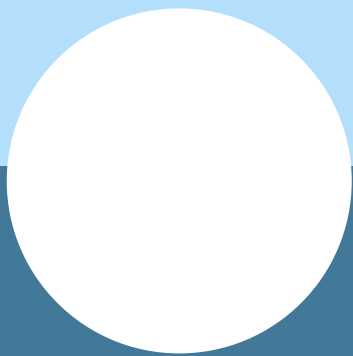
1. Pick the injection site.
2. Clean the area with alcohol or soap and water. If you use alcohol, allow the skin to dry to prevent stinging.
3. Insert the needle straight into your child's skin. Push the plunger on the syringe or the bottom on the insulin pen until all insulin is injected.
4. Count slowly to 10.
5. Remove the needle from your child's skin.
6. Check the site to see if insulin leaks out. If this happens, make a note in your child's logbook. Your child's next blood glucose may be higher than expected.⁵

HOW DO I PREVENT MY CHILD GETTING SCAR TISSUE?

Using different areas on your child for their injection sites is one simple step to preventing scar tissue. If you use an injection site too often, your child may develop scar tissue. Scar tissue may look like swelling or a hard lump and when this occurs, injecting insulin into these areas starts to become hard to inject. However, if you do inject your child's insulin into scar tissue, insulin may leak out and if it doesn't, you may see higher levels of blood glucose at the next check. This is due to your child not getting enough insulin. One tip if your child has scar tissue is to not use that site for at least 3 months. When site is used again and the blood glucose levels are still elevated there might still be scar tissue at your child's injection site.⁵

CHAPTER 5 REFERENCES

1. WEBMD. (N.D.). YOUR CHILD'S DIABETES: TIPS TO MAKE IT EASIER. WEBMD. RETRIEVED APRIL 29, 2023, FROM [HTTPS://WWW.WEBMD.COM/DIABETES/TIPS-TO-HELP-YOUR-CHILD-WITH-TYPE-1-DIABETES](https://www.webmd.com/diabetes/tips-to-help-your-child-with-type-1-diabetes)
2. CENTERS FOR DISEASE CONTROL AND PREVENTION. (2022, DECEMBER 30). PREVENT TYPE 2 DIABETES IN KIDS. CENTERS FOR DISEASE CONTROL AND PREVENTION. RETRIEVED APRIL 30, 2023, FROM [HTTPS://WWW.CDC.GOV/DIABETES/PREVENT-TYPE-2/TYPE-2-KIDS.HTML](https://www.cdc.gov/diabetes/prevent-type-2/type-2-kids.html)
3. WEBMD. (N.D.). YOUR CHILD'S DIABETES: TIPS TO MAKE IT EASIER. WEBMD. RETRIEVED APRIL 29, 2023, FROM [HTTPS://WWW.WEBMD.COM/DIABETES/TIPS-TO-HELP-YOUR-CHILD-WITH-TYPE-1-DIABETES](https://www.webmd.com/diabetes/tips-to-help-your-child-with-type-1-diabetes)
4. TOP FIVE THINGS PARENTS CAN DO TO HELP THEIR TYPE 2 DIABETIC CHILD. NEWS. (2022, MARCH 17). RETRIEVED APRIL 30, 2023, FROM [HTTPS://NEWS.LLU.EDU/HEALTH-WELLNESS/TOP-FIVE-THINGS-PARENTS-CAN-DO-HELP-THEIR-TYPE-2-DIABETIC-CHILD](https://news.llu.edu/health-wellness/top-five-things-parents-can-do-help-their-type-2-diabetic-child)
5. INSULIN INJECTIONS. NATIONWIDE CHILDREN'S HOSPITAL. (N.D.). RETRIEVED MAY 1, 2023, FROM [HTTPS://WWW.NATIONWIDECHILDRENS.ORG/FAMILY-RESOURCES-EDUCATION/HEALTH-WELLNESS-AND-SAFETY-RESOURCES/RESOURCES-FOR-PARENTS-AND-KIDS/MANAGING-YOUR-DIABETES/CHAPTER-SIX-INSULIN-INJECTIONS](https://www.nationwidechildrens.org/family-resources-education/health-wellness-and-safety-resources/resources-for-parents-and-kids/managing-your-diabetes/chapter-six-insulin-injections)



**HOW TO LIVE
WITH
DIABETES AND
MANAGE THE
CONDITIONS**

MANAGING THE CONDITION

The diagnosis of diabetes in children can be incredibly difficult. The physical and mental toll that it can have on both a parent and child is astounding. As part of managing the condition, parents will have to monitor blood glucose levels, as well as adopting an appropriate lifestyle that incorporates physical and nutritional health.¹ As part of obtaining a diagnosis for this condition, it is important that the necessary steps are taken to ensure the child can live a somewhat normal and happy life. These steps will be explained on the next page.

Managing Blood Sugar Levels

Managing a child's blood sugar will be a difficult task but will become easier as time progresses. If a child's blood sugars are not maintained, conditions such as diabetic ketoacidosis can be an unfortunate consequence. Taking blood sugar levels daily is an important part of taking care of the body when someone has this condition.



IF YOUR CHILD IS DIAGNOSED WITH DIABETES: WHAT ARE THE FIRST STEPS TO TAKE?

1. Ask for help if you or your child needs it
2. Join support groups for both your child and yourself
3. Attend all doctor's appointments regarding your child's diabetes treatment plan
4. Work with the child's school to ensure their treatment plan runs accordingly
5. Educate yourself on the signs of symptoms of low/high blood sugar in your child
6. Develop a daily routine that is sustainable for both you and your child. ²



Symptoms of Hypoglycemia



Shaking or trembling.



Faster heart rate.



Extreme hunger.



Sweating.



Confusion/difficulty concentrating.



Dizziness.

CHAPTER 6 REFERENCES

1. PATTERSON, C. (ED.). (2021, SEPTEMBER). MANAGING BLOOD SUGARS WHEN YOUR CHILD HAS TYPE 2 DIABETES (FOR PARENTS) - NEMOURS KIDSHEALTH. KIDSHEALTH. RETRIEVED APRIL 30, 2023, FROM [HTTPS://KIDSHEALTH.ORG/EN/PARENTS/DIABETES-CONTROL.HTML](https://kidshealth.org/en/parents/diabetes-control.html)
2. MAYO FOUNDATION FOR MEDICAL EDUCATION AND RESEARCH. (2023, JANUARY 11). TYPE 2 DIABETES IN CHILDREN. MAYO CLINIC. RETRIEVED APRIL 30, 2023, FROM [HTTPS://WWW.MAYOCLINIC.ORG/DISEASES-CONDITIONS/TYPE-2-DIABETES-IN-CHILDREN/DIAGNOSIS-TREATMENT/DRC-20355312](https://www.mayoclinic.org/diseases-conditions/type-2-diabetes-in-children/diagnosis-treatment/drc-20355312)



REFERENCES

Chapter 1 References

1. Mayo Foundation for Medical Education and Research. (2023, March 14). Type 2 diabetes. Mayo Clinic. Retrieved 3n.d., from <https://www.mayoclinic.org/diseases-conditions/type-2-diabetes/symptoms-causes/syc-20351193>
2. WebMD. (n.d.). Diabetes and your pancreas: What's the link? WebMD. Retrieved April 30, 2023, from <https://www.webmd.com/diabetes/diabetes-and-your-pancreas>
3. Chandrashekar, D. A. S. (2022, September 3). Chart of normal blood sugar levels for adults with diabetes age wise. Being. Retrieved April 30, 2023, from <https://www.breathewellbeing.in/blog/chart-of-normal-blood-sugar-levels-for-adults-with-diabetes/>

Chapter 2 References

1. Legner, L. (2022, January 6). Does my child have diabetes? OSF HealthCare Blog. Retrieved April 27, 2023, from <https://www.osfhealthcare.org/blog/does-my-child-have-diabetes/>
2. Mayo Foundation for Medical Education and Research. (2022, March 31). Type 2 diabetes in children. Mayo Clinic. Retrieved April 27, 2023, from <https://www.mayoclinic.org/diseases-conditions/type-2-diabetes-in-children/symptoms-causes/syc-20355318>
3. Stanford Medicine Children's health. Stanford Medicine Children's Health - Lucile Packard Children's Hospital Stanford. (n.d.). Retrieved April 27, 2023, from <https://www.stanfordchildrens.org/en/topic/default?id=type-2-diabetes-in-children-90-P01978>

Chapter 3 References

1. Diagnosing type 2 diabetes. Patient Care at NYU Langone Health. (n.d.). Retrieved April 27, 2023, from <https://nyulangone.org/conditions/type-2-diabetes/diagnosis>
2. Centers for Disease Control and Prevention. (2023, February 28). Diabetes tests. Centers for Disease Control and Prevention. Retrieved April 27, 2023, from <https://www.cdc.gov/diabetes/basics/getting-tested.html>
3. Mayo Foundation for Medical Education and Research. (2023, March 14). Type 2 diabetes. Mayo Clinic. Retrieved April 27, 2023, from <https://www.mayoclinic.org/diseases-conditions/type-2-diabetes/diagnosis-treatment/drc-20351199>
4. Diagnosis. Diagnosis | ADA. (n.d.). Retrieved April 27, 2023, from <https://diabetes.org/diabetes/a1c/diagnosis>

Chapter 4 References

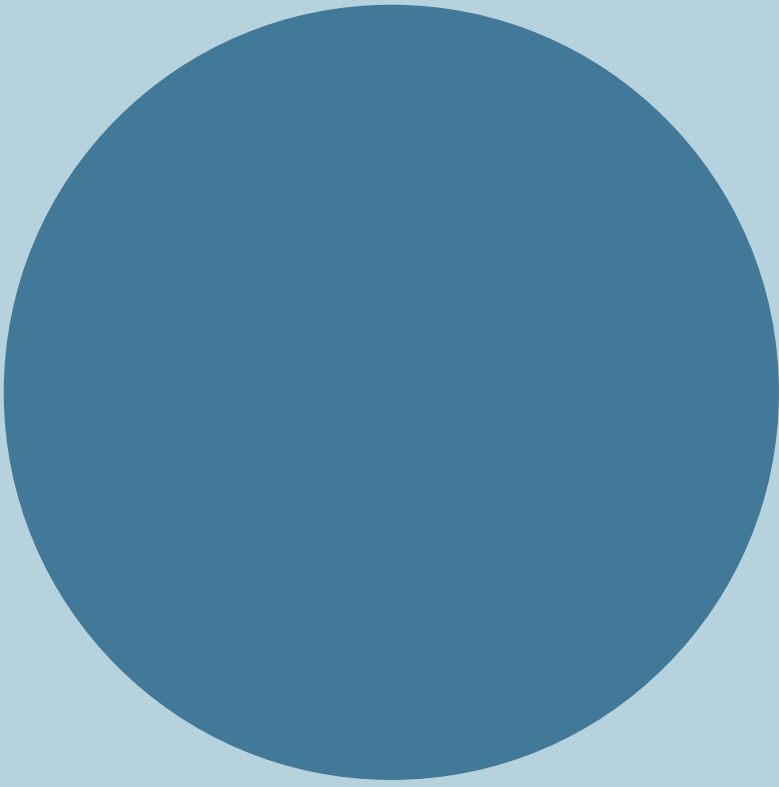
1. Bender, D. (n.d.). 6 fitness trends to look out for in 2022. NASM. Retrieved April 25, 2023, from <https://blog.nasm.org/fitness-trends>
2. Centers for Disease Control and Prevention. (2022, April 5). Diabetes risk factors. Centers for Disease Control and Prevention. Retrieved April 25, 2023, from <https://www.cdc.gov/diabetes/basics/risk-factors.html>
3. Centers for Disease Control and Prevention. (2022, December 30). Type 2 diabetes. Centers for Disease Control and Prevention. Retrieved April 25, 2023, from <https://www.cdc.gov/diabetes/basics/type2.html#:~:text=Type%20%20diabetes%20most%20often,adults%20are%20also%20developing%20it.>
4. Healthy Eating Plate. The Nutrition Source. (2023, January 31). Retrieved April 25, 2023, from <https://www.hsph.harvard.edu/nutritionsource/healthy-eating-plate/>
5. Man riding a red road bike · Free Stock Photo - PEXELS. (n.d.). Retrieved April 26, 2023, from <https://www.pexels.com/photo/man-riding-a-red-road-bike-5970279/>
6. Smith, S. (2018, March 29). The 10 golden rules of fitness. ACTIVE.com. Retrieved April 25, 2023, from <https://www.active.com/fitness/articles/the-10-golden-rules-of-fitness#:~:text=It's%20recommended%20that%20healthy%20adults,of%20vigorous%20exercise%20each%20week.>
7. Type 2 diabetes diet: What to eat and what to avoid - endocrineweb. (n.d.). Retrieved April 26, 2023, from <https://www.endocrineweb.com/conditions/type-2-diabetes/type-2-diabetes-diet>
8. What is diabetes? what are its types? - public health notes. (n.d.). Retrieved April 26, 2023, from <https://www.publichealthnotes.com/what-is-diabetes-what-are-its-types/>
9. World Health Organization. (n.d.). Nutrition. World Health Organization. Retrieved April 25, 2023, from https://www.who.int/health-topics/nutrition#tab=tab_1

Chapter 5 References

1. WEBMD. (N.D.). YOUR CHILD'S DIABETES: TIPS TO MAKE IT EASIER. WEBMD. RETRIEVED APRIL 29, 2023, FROM [HTTPS://WWW.WEBMD.COM/DIABETES/TIPS-TO-HELP-YOUR-CHILD-WITH-TYPE-1-DIABETES](https://www.webmd.com/diabetes/tips-to-help-your-child-with-type-1-diabetes)
2. CENTERS FOR DISEASE CONTROL AND PREVENTION. (2022, DECEMBER 30). PREVENT TYPE 2 DIABETES IN KIDS. CENTERS FOR DISEASE CONTROL AND PREVENTION. RETRIEVED APRIL 30, 2023, FROM [HTTPS://WWW.CDC.GOV/DIABETES/PREVENT-TYPE-2/TYPE-2-KIDS.HTML](https://www.cdc.gov/diabetes/prevent-type-2/type-2-kids.html)
3. WEBMD. (N.D.). YOUR CHILD'S DIABETES: TIPS TO MAKE IT EASIER. WEBMD. RETRIEVED APRIL 29, 2023, FROM [HTTPS://WWW.WEBMD.COM/DIABETES/TIPS-TO-HELP-YOUR-CHILD-WITH-TYPE-1-DIABETES](https://www.webmd.com/diabetes/tips-to-help-your-child-with-type-1-diabetes)
4. TOP FIVE THINGS PARENTS CAN DO TO HELP THEIR TYPE 2 DIABETIC CHILD. NEWS. (2022, MARCH 17). RETRIEVED APRIL 30, 2023, FROM [HTTPS://NEWS.LLU.EDU/HEALTH-WELLNESS/TOP-FIVE-THINGS-PARENTS-CAN-DO-HELP-THEIR-TYPE-2-DIABETIC-CHILD](https://news.llu.edu/health-wellness/top-five-things-parents-can-do-help-their-type-2-diabetic-child)
5. INSULIN INJECTIONS. NATIONWIDE CHILDREN'S HOSPITAL. (N.D.). RETRIEVED MAY 1, 2023, FROM [HTTPS://WWW.NATIONWIDECCHILDRENS.ORG/FAMILY-RESOURCES-EDUCATION/HEALTH-WELLNESS-AND-SAFETY-RESOURCES/RESOURCES-FOR-PARENTS-AND-KIDS/MANAGING-YOUR-DIABETES/CHAPTER-SIX-INSULIN-INJECTIONS](https://www.nationwidechildrens.org/family-resources-education/health-wellness-and-safety-resources/resources-for-parents-and-kids/managing-your-diabetes/chapter-six-insulin-injections)

Chapter 6 References

1. PATTERSON, C. (ED.). (2021, SEPTEMBER). MANAGING BLOOD SUGARS WHEN YOUR CHILD HAS TYPE 2 DIABETES (FOR PARENTS) - NEMOURS KIDSHEALTH. KIDSHEALTH. RETRIEVED APRIL 30, 2023, FROM [HTTPS://KIDSHEALTH.ORG/EN/PARENTS/DIABETES-CONTROL.HTML](https://kidshealth.org/en/parents/diabetes-control.html)
2. MAYO FOUNDATION FOR MEDICAL EDUCATION AND RESEARCH. (2023, JANUARY 11). TYPE 2 DIABETES IN CHILDREN. MAYO CLINIC. RETRIEVED APRIL 30, 2023, FROM [HTTPS://WWW.MAYOCLINIC.ORG/DISEASES-CONDITIONS/TYPE-2-DIABETES-IN-CHILDREN/DIAGNOSIS-TREATMENT/DRC-20355312](https://www.mayoclinic.org/diseases-conditions/type-2-diabetes-in-children/diagnosis-treatment/drc-20355312)



TYPE II DIABETES PARENT HANDBOOK

Written By: Charlotte Gordon, Ayla
Maughon, Andrew Canaway, and
Samantha Clarke