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Special thanks to Drs. Janet H. Silverstein, M.D., Michael Haller, M.D., and the University of Florida Pediatric Diabetes Team for their ongoing commitment to educating and empowering children and families impacted by Type 1 Diabetes, providing hope for a more promising future.

Drawn from Valor is a 501(c)(3) non-profit animation studio helping to educate and empower children and families impacted by physical and mental health conditions. Our goal is to help children and families live longer, healthier, and happier lives by empowering them to discover new knowledge in an engaging environment at their own pace. For more information, please visit https://drawnfromvalor.org.

Dedicated to Maria Valladares, who always encouraged me to write a book for children about diabetes.

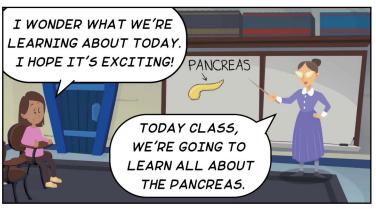
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Medical Disclaimer: Drawn from Valor is a 501(c)(3) non-profit organization collaborating with professionals in the medical and mental health fields to provide resources to those impacted by various medical or mental health conditions. The animations we create are not intended to be a substitute for professional medical advice, diagnosis or treatment.

They are for information and educational purposes only.

Always seek the timely advice and/or treatment of your physician or other qualified health care provider with any questions you may have regarding medical or mental health condition(s), including but not limited to those medical and/or mental health conditions detailed in this animation or animated series.





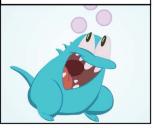








WHEN WE EAT FOOD, WE GIVE OUR CELLS THE FUEL THEY NEED.



THE FOOD GOES

INTO OUR

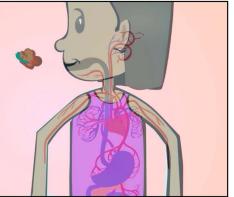
STOMACH

WHERE IT

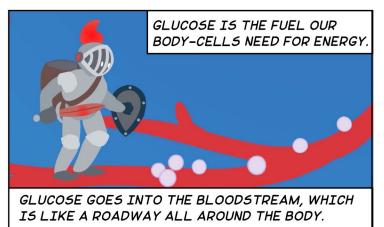
BREAKS UP

INTO SMALLER

PIECES.







OUR BLOOD CARRIES THE GLUCOSE ALL OVER THE BODY DELIVERING FUEL TO THE CELLS.



BEHIND THE STOMACH IS THE PANCREAS. WHEN IT SEES GLUCOSE...



...THE PANCREAS MAKES INSULIN.



INSULIN AND GLUCOSE TRAVEL THROUGH THE BLOODSTREAM TO THE BODY-CELLS.



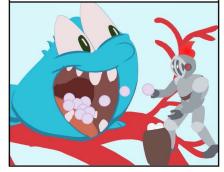
INSULIN WORKS LIKE A KEY...



...UNLOCKING THE DOORS OF OUR BODY-CELLS TO LET THE GLUCOSE IN



...50 THAT THE BODY-CELLS ARE HAPPY. THEY HAVE THE FUEL THEY NEED!



WHEN SOMEONE HAS TYPE 1 DIABETES, THE PANCREAS STOPS MAKING INSULIN.



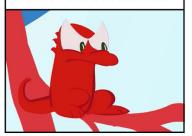
THIS MEANS THERE ARE NO KEYS TO UNLOCK THE DOORS TO OUR CELLS.



SO THE BODY-CELLS CAN'T GET THE GLUCOSE THEY NEED. WITHOUT THAT FUEL, OUR BODY-CELLS GO HUNGRY.



WE MAY LOSE A LOT OF WEIGHT BECAUSE OUR CELLS ARE STARVING.



ALSO, THIS CAN MAKE US FEEL VERY TIRED.



SINCE THE GLUCOSE CAN'T GET INTO THE CELLS, IT HAS NOWHERE TO GO.



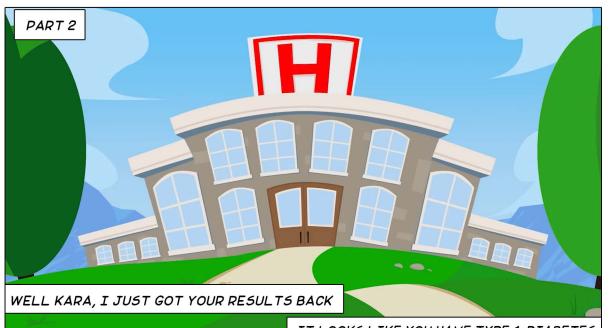












IT LOOKS LIKE YOU HAVE TYPE 1 DIABETES.



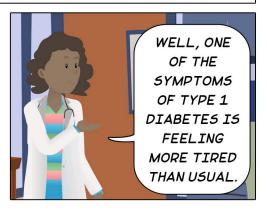
OH DR. B, HOW DID THIS HAPPEN? DID WE DO SOMETHING WRONG?

NO, YOU DIDN'T DO ANYTHING WRONG. TYPE 1 DIABETES IS AN AUTOIMMUNE DISEASE. KARA'S IMMUNE SYSTEM GOT CONFUSED AND DAMAGED PART OF HER PANCREAS.



AND NOW KARA'S PANCREAS DOESN'T MAKE INSULIN LIKE IT'S SUPPOSED TO.

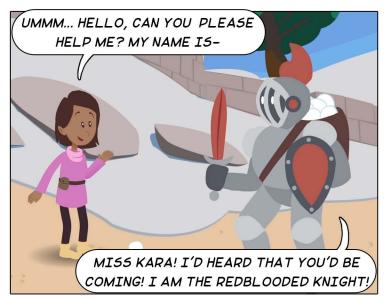






NOW LET ME TELL YOU HOW TO TAKE CARE OF TYPE 1 DIABETES.

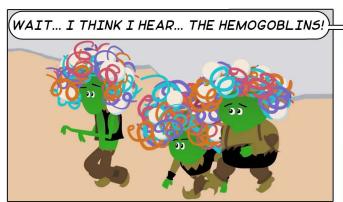








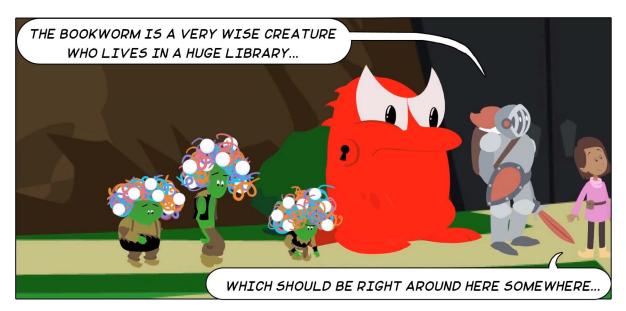
















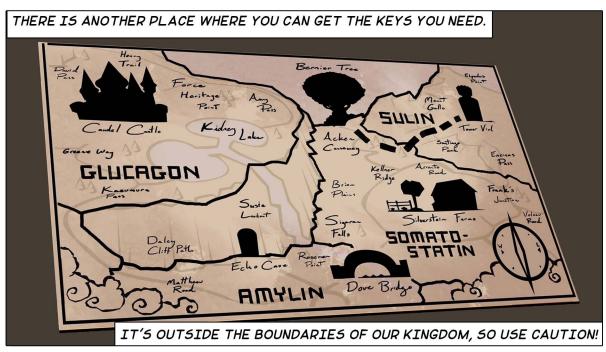






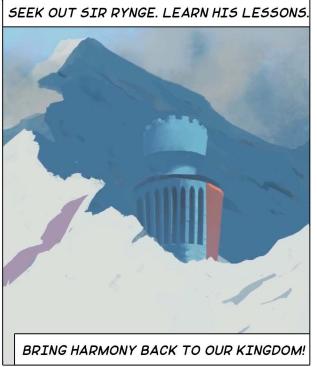










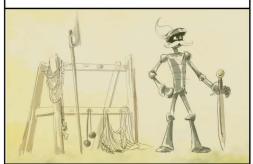


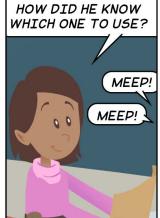


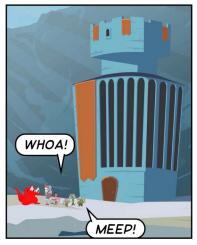
...THE STOUT-HEARTED WHITE KNIGHT! HE DEFENDS THIS LAND, YOU KNOW!



NO MATTER HOW MANY AND VARIED WERE HIS FOES, HE ALWAYS LEARNED WHICH TOOL WOULD BEST DEFEAT THEM!







HARK, YE! I, THE REDBLOODED KNIGHT AND THE LADY KA...



GREETINGS SIR RYNGE! I'M KARA, AND WE'RE LOOKING FOR A SPECIAL KEY.





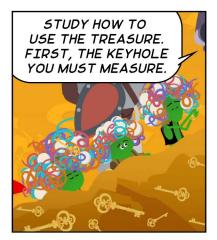




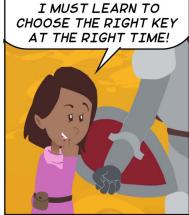








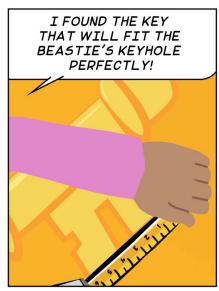












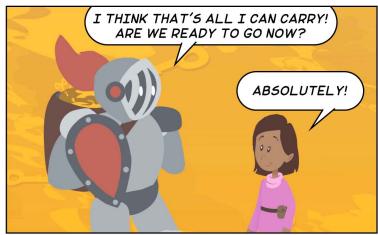






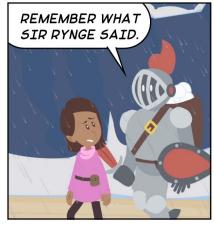












AS RAINS OF IVY GATHER NEAR, THE GLUECLOSE SOON WILL DISAPPEAR. TAKE CARE WHAT ENTERS THE BEASTIE'S HEAD TO KEEP IT TRULY WELL AND FED.











...AS YOU REMEMBER,



THE WHITE KNIGHT PROTECTS
THE LAND FROM INVADERS.
HE DID A GREAT JOB!



WELL... AS GOOD AS CAN BE EXPECTED. NEAR AS WE CAN FIGURE THOUGH, SOMETHING WENT WRONG!







...YOU'RE SAYING THAT THE WHITE KNIGHT ATTACKED PANCREAS, THE BLACKSMITH?



NO, JUST HIS FORGE, WHICH ALLOWED HIM TO MAKE HIS KEYS WHICH I COULD PICK UP ANY TIME I NEEDED TO.



WITHOUT THE FORGE,
HE COULDN'T MAKE THE
KEYS ANYMORE. AND NOW,
WHEN WE NEED THEM, WE
HAVE TO GET THE KEYS
FROM THE TOWER VIAL
IN... SULIN!







"TAKE CARE WHAT ENTERS THE BEASTIE'S HEAD TO KEEP IT TRULY WELL AND FED."







BEASTIE'S MOUTH IS ALREADY OPEN. MAYBE HE DOESN'T NEED A KEY RIGHT NOW!



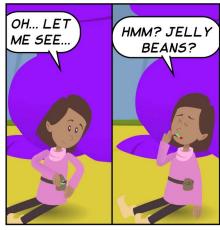
GIVE HIM SOME GLUECLOSE! MAYBE THAT WILL MAKE HIM FEEL BETTER!



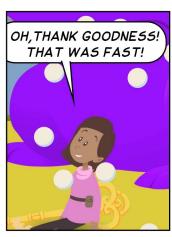














I'M GLAD BEASTIE ISN'T LOOKING SO LOW ANYMORE! THOSE JELLY BEANS WERE HANDY! YOU SHOULD ALWAYS KEEP SOME AROUND!



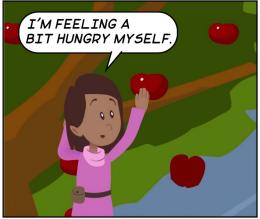
I THINK I'M STARTING TO GET THE HANG OF THIS! BUT... THERE'S SO MUCH TO REMEMBER. I DON'T KNOW IF I CAN DO IT.



FEAR NOT MISS KARA! LOOK HOW MUCH YOU'VE LEARNED SO FAR! JUST KEEP AT IT, AND I'M SURE YOU'LL DO GREAT!



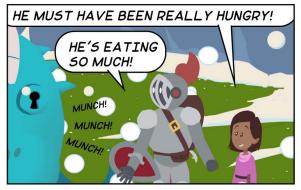






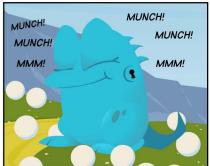














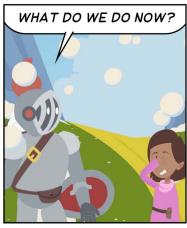












WELL, BIG KEYS AND NOT ENOUGH GLUECLOSE MADE BEASTIE WEAK AND WOOZY. NOW TOO MUCH GLUECLOSE AND SMALL KEYS MADE HIM RED AND GRUMPY.



I'M FEELING A LITTLE CONFUSED, BUT IF HE NEEDS A KEY, WE CAN TAKE CARE OF THAT! LET'S MEASURE TO KNOW THE RIGHT SIZE!













WELL, IT LOOKS LIKE

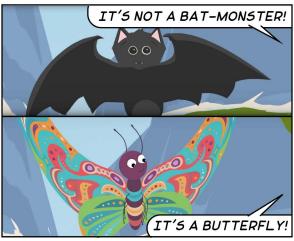




































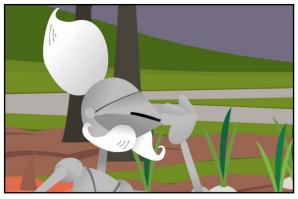
















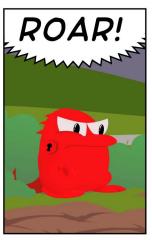
















OH, BEASTIE! ARE YOU

NOT WHEN YOU LOOK AFTER HIM CAREFULLY AND CONSISTENTLY.

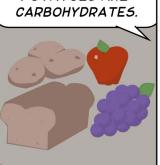


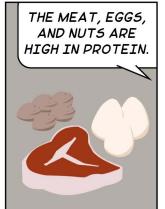


NOT WORSE, KARA, JUST OUT OF BALANCE: BUT WE CAN FIX THAT! HERE'S THREE TYPES OF FOOD. WHAT CAN YOU TELL ME ABOUT THEM?



...THE FRUITS, BREAD, AND POTATOES ARE CARBOHYDRATES.





THE BUTTER, CREAM, AND VEGETABLE OIL ARE HIGH IN FAT.



IT'S NOT THAT ONE TYPE OF FOOD IS MORE IMPORTANT THAN THE OTHERS. YOU NEED TO HAVE THE RIGHT AMOUNT OF ALL OF THEM...



...BUT ONLY ONE OF THESE WILL IMPACT THE LEVELS OF GLUECLOSE THE MOST.



WELL, WHEN I ATE
THE APPLE, GLUECLOSE
STARTED SNOWING DOWN
FROM THE SKY; AND THE
APPLE IS A CARBOHYDRATE...

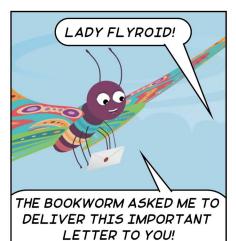


...50 I NEED TO PAY CLOSE
ATTENTION WHEN I EAT
CARBOHYDRATES TO HELP
BEASTIE AND ME LIVE
IN BALANCE!





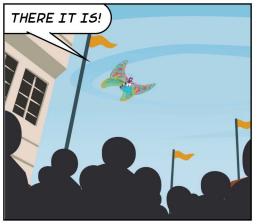
RIGHT! SEEMS YOU'RE LEARNING QUICKER THAN YOU REALIZED!



















































THAT'S MUCH BETTER!
I'LL TRY TO REMEMBER
THAT WITH EXERCISE
BEASTIE NEEDS
GLUECLOSE.





























DID YOU NOT HAVE A CHANCE TO SEE THE BEASTIE SURELY NEEDS A KEY?



I GUESS WE WERE SO FOCUSED ON THE COMPETITION, WE FORGOT TO KEEP AN EYE ON HOW THE BEASTIE WAS DOING!



...ALL OF THAT RUNNING DURING PRACTICE MADE BEASTIE NEED MORE GLUECLOSE: BUT BEFORE THE COMPETITION, I WAS REALLY EXCITED, SO HE NEEDED A BIGGER KEY THAN I WOULD HAVE THOUGHT.



...I GUESS EXERCISE AFFECTS US DIFFERENTLY WHEN WE'RE NERVOUS AND OUR ADRENALINE IS PUMPING.



THIS MAP TO TECH CITY IS MY GIFT ...



IT LOOKS LIKE YOU COULD USE A LIFT!



















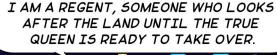
















BEASTIE NEEDS A KEY, BUT I'M NOT ABLE TO MEASURE HIS KEYHOLE RIGHT NOW. I NEED TO ASK FOR HELP!



...I KNOW BEASTIE NEEDS A KEY, BUT I WONDER IF THERE'S A BETTER WAY TO CONSTANTLY MONITOR WHAT HE NEEDS AND GIVE KEYS CORRECTLY.



THAT BEEPING IS COMING FROM THIS MACHINE, AND IT'S TRYING TO HELP YOU! IT WORKS LIKE A PUMP...



THAT'S GREAT! HOW DO I USE IT?









...TRYING TO MAKE SURE YOU GET THE RIGHT KEY AT THE RIGHT TIME!







DON'T THANK ME YET! WE NEED TO MAKE SURE THE PUMP IS SET UP RIGHT, OR WE COULD END UP WITH TOO MANY KEYS!







WHEN WE FIRST STARTED, I HAD NO IDEA
WHAT WAS GOING ON. I WAS NERVOUS
AND SCARED, BUT WITH YOUR HELP,
AND KNOWING WHAT IS HAPPENING...



I'LL ALWAYS NEED SOME HELP, BUT
I'M NOT AFRAID TO ASK FOR IT.

OK. I THINK IT'S SET FOR NOW. I'LL HAVE TO KEEP CHECKING IT TO MAKE SURE EVERYTHING STAYS BALANCED!



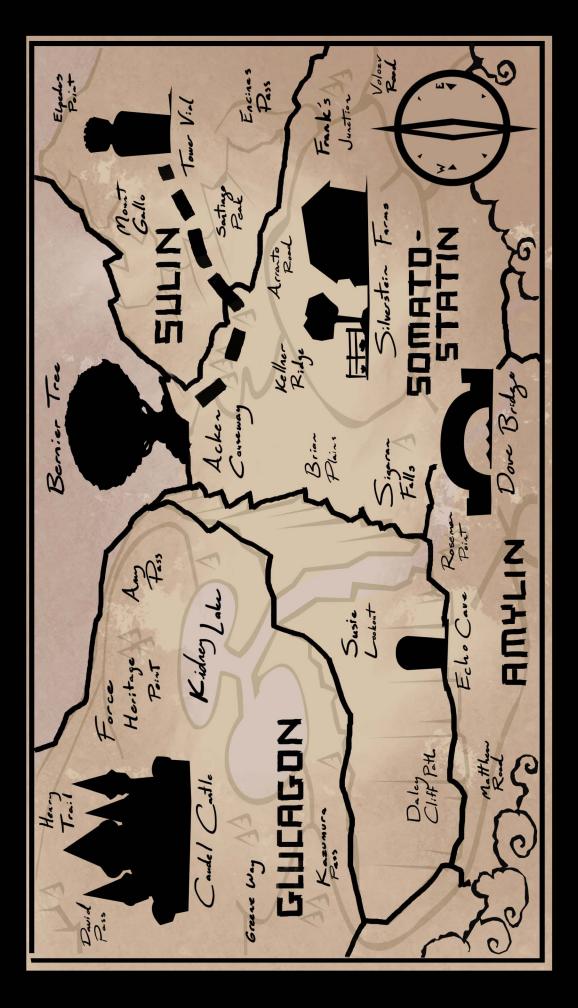
LADY KARA, FOR YOUR QUICK THINKING AND UNCEASING EFFORT, I TRANSFER MY CROWN OF AUTHORITY TO YOU.





...I BELIEVE THAT I AM UP TO THE CHALLENGE OF TAKING CARE OF MY "NOT SO DIRE BEASTIE".





Kara and the (not so) Dire Beastie follows Kara, a young girl diagnosed with Type 1 Diabetes (T1D), as she embarks on a quest to restore balance to a magical kingdom and help manage the Dire Beastie. Accompanied by the Redblooded Knight and a gaggle of Hemo-Goblins, Kara travels the kingdom in search of allies such as the fabled knight, Sir Rynge, to help her achieve her goal.

Both entertaining and educational, this story is designed to help children and their families learn about T1D with the goal of empowering them to discover new knowledge in an engaging environment at their own pace.

Kara and the (not so) Dire Beastie was created by Drawn from Valor in partnership with Dr. Angelina Bernier and the Pediatric Diabetes

Team at the University of Florida.

