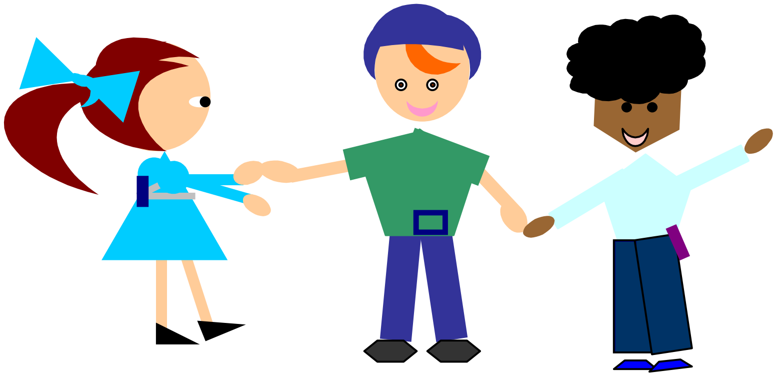
MY OWN BOOK ABOUT PUMPING

Written and illustrated by Sandra J. Hollenberg
(Malcolm's Grandma Sandy)
author of MY OWN TYPE 1 DIABETES BOOK and MY OWN TYPE 1 DIABETES GAMES



For a sturdy book print double sided on card stock; bind with a plastic comb or coil (available at most copy shops).

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MY OWN BOOK ABOUT PUMPING is a very basic primer about insulin pump therapy. It will be useful to families considering such a step. It will also be helpful to children already on the regime; it is a source they can refer to and show their friends.

I am a grandmother, not a health care professional. If pump therapy interests you, visit the websites of the major pump manufacturers: www.animascorp.com, www.disetronic.com, and www.minimed.com; discuss the options with your health care team and, of course, with the center of that team, your child.

The decision to 'pump insulin' is not to be taken lightly. It requires a major commitment from the primary care giver as well as from a supportive health care team. Certainly the child must be a willing participant and committed to wearing the pump constantly. As with all health care decisions the well being of the patient must be the prime consideration.

My grandson Malcolm was 4 years old when he started his pump therapy. Two and one half years later he still does not like having his infusion site changed but he prefers this to having shots. I think that knowing the decision to pump is his choice makes it easier for Malcolm to accept the less pleasant aspects.

Pumping is not the only therapy for type 1 diabetes but it is the therapy Malcolm prefers. I prefer it too. I must admit I found giving shots daunting. With Malcolm on the pump I am comfortable spending long periods of time alone with him. (An added benefit to the family is that now I can look after Malcolm so my daughter can get away occasionally for much-needed vacations.)

As always, I want to express appreciation to my daughter Barbi Lazarow for being such a wonderful mother to Malcolm and to my dear friend and editor, Dyane Lynch.

All the best,
Sandra J. Hollenberg
(Malcolm's Grandma Sandy)
email: sjh4dbts@aol.com

PS – Please contact me if you can translate this book.
It would be wonderful to make it available for
non-English speaking children.

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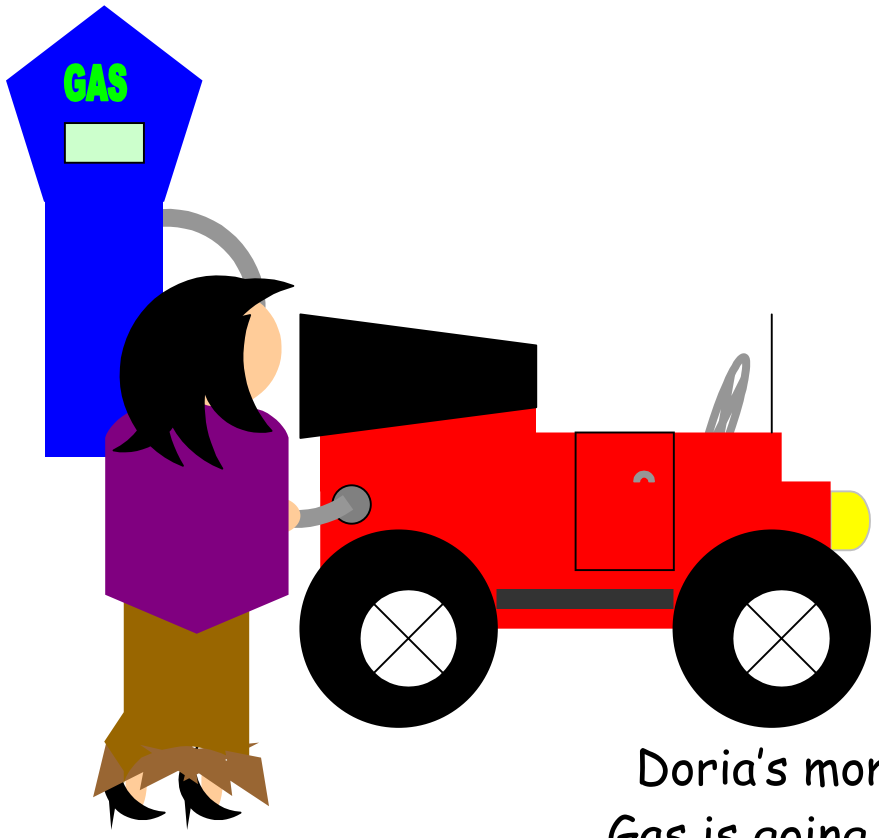
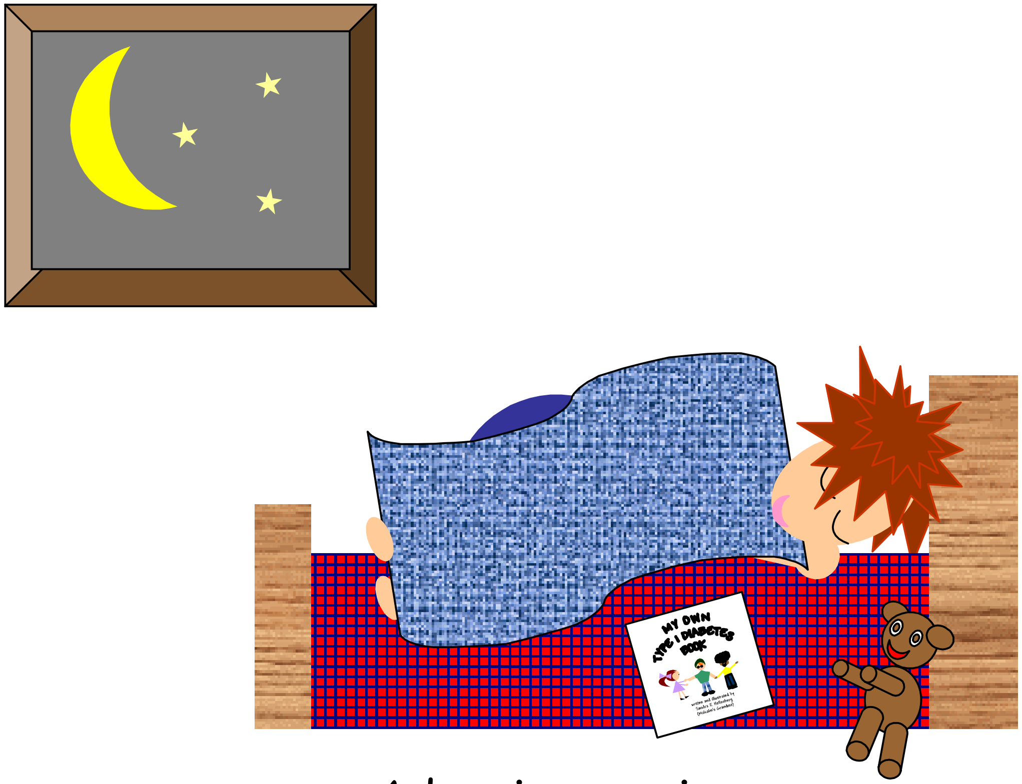
Farmer Brown is pumping.
Water is going into the pail.



Doria's mom is pumping.
Gas is going into the car.

Jonathan is pumping.
Air is going into the balloons.



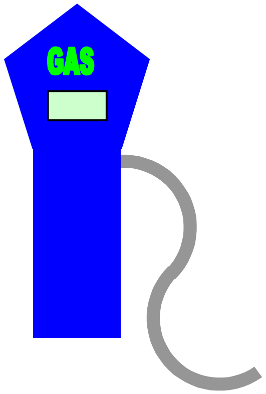
Adam is pumping.

Tara is pumping.

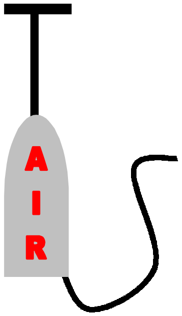
Glucose is going into their cells.

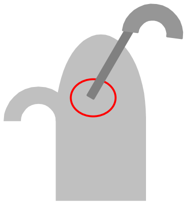
Tara and Adam are pumping insulin.
They have type 1 diabetes, just like you.

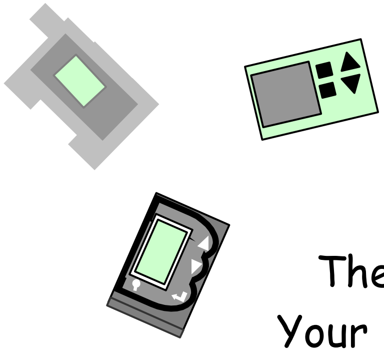
An insulin pump isn’t like the pump Doria’s mom is using.
That would be way too big.



It isn’t like Jonathan’s air pump
or Farmer Brown’s water pump.







Insulin pumps are small,
like a deck of cards.
They are small so you can wear them all the time.

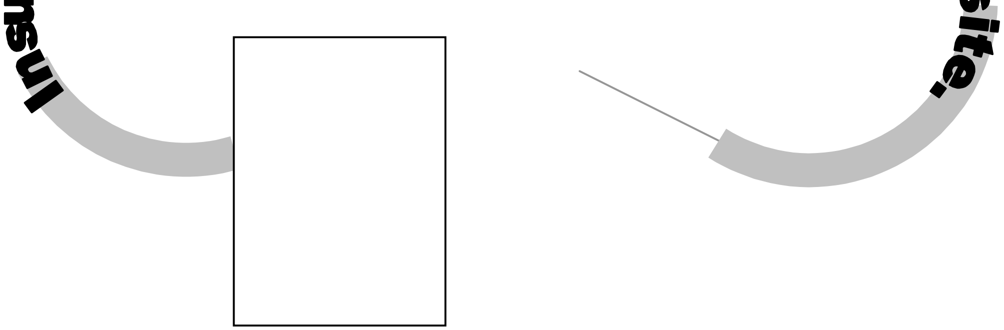
There are different kinds of insulin pumps.
Your health care team will help you choose one.

The insulin pumps are different but many things about wearing them are the same.

Those are the things this book will tell you about.

All pumps deliver insulin the same way.

Insulin goes from the pump to an infusion site.



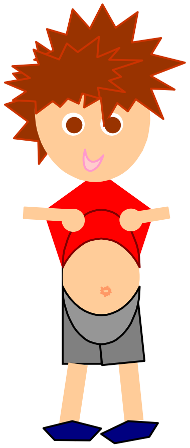
You can wear your pump in different places.

Tara wears hers in a special pocket.
She uses a harness for tennis.
Adam clips his pump on his pants.

You can have your infusion site in different places.

Tara has her infusion site high on her backside.
Adam likes his infusion site on his tummy.

The infusion site must be changed
every two or three days.



Special creams can be used to numb the skin.

Adam doesn’t feel it
when the infusion site is changed.
Neither does Tara.

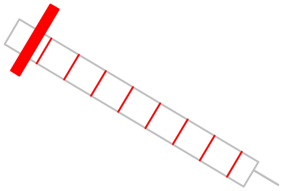
It doesn’t hurt.
Still, some days Tara fusses.

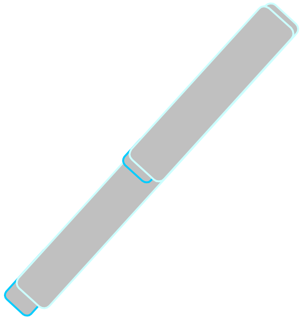
Her mother says,
"Think of something wonderful!"

Tara pretends she is dancing on clouds.

What does Adam think about changing his infusion site?

"It's a drag," he says,
"but it's better than shots!"





What about all those blood checks, Adam?
Every time before you eat.
Sometimes in the night when you are sleeping.
Ten checks a day or more.

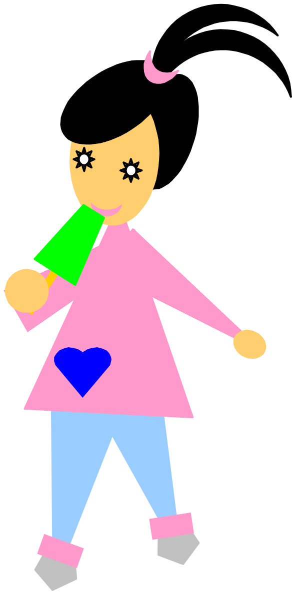
What about that, Adam?

"It's still a lot better than shots!"

Adam used to have his shots
before meals.
Then he *always* had to eat at
certain times.
Then he *sometimes* had to eat
when he wasn't hungry.

Now, Adam can eat whenever he wants - but
don't spoil dinner!

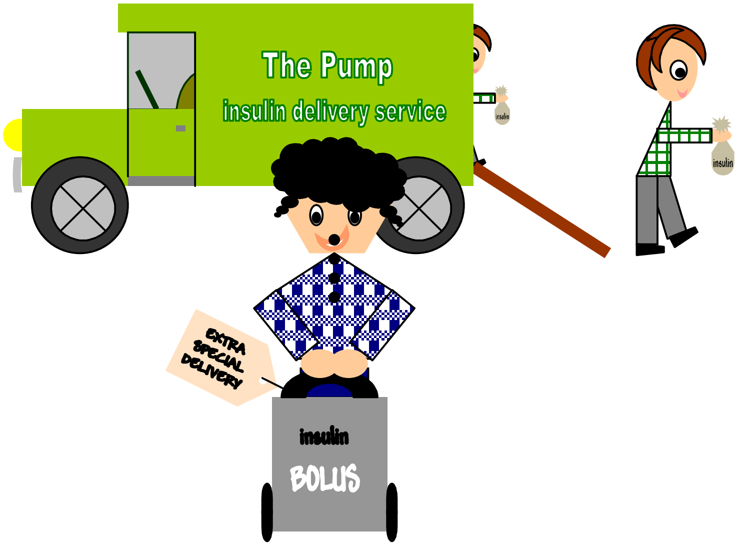
Tara used to have her shots after she ate.



Every time she had carbohydrates she needed an insulin shot.

Tara still needs insulin after she eats carbohydrates.
But she doesn't get shots!

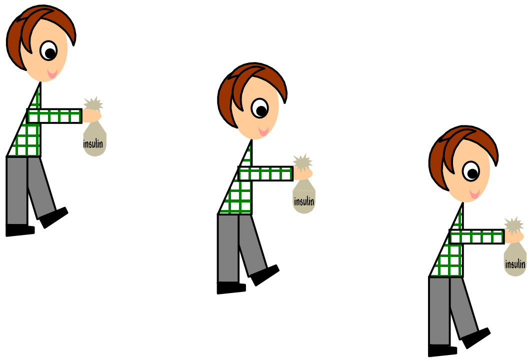
The pump delivers the insulin she needs.



The amount of insulin needed is programmed into the pump.

This insulin is called a '*bolus*'.

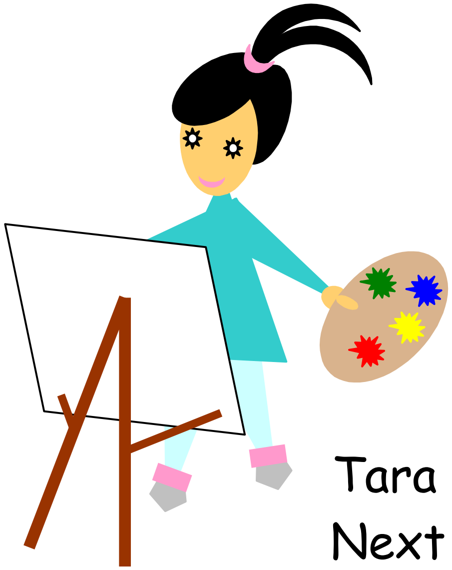
The bolus is *extra* insulin.



It is extra because the pump delivers insulin every few minutes.

This *every few minutes* insulin is called the *'basal rate'*.

The basal rate is balanced with your energy needs.
Your interests and activities affect your energy needs.
When your interests and activities change your energy needs change too.



Tara takes tennis after school now.
Next month she is switching to art.
Will she be using more or less energy in the afternoons?

In the mornings Adam sleeps late.
He hangs around in his pajamas watching TV.

Soon Adam will be starting kindergarten.
He will have to get up early and go to school.
Will he be using more or less energy in the mornings?

Your interests and activities affect your energy needs.
Your energy needs also change as you grow.

Your basal rate must be changed
when your energy needs change.

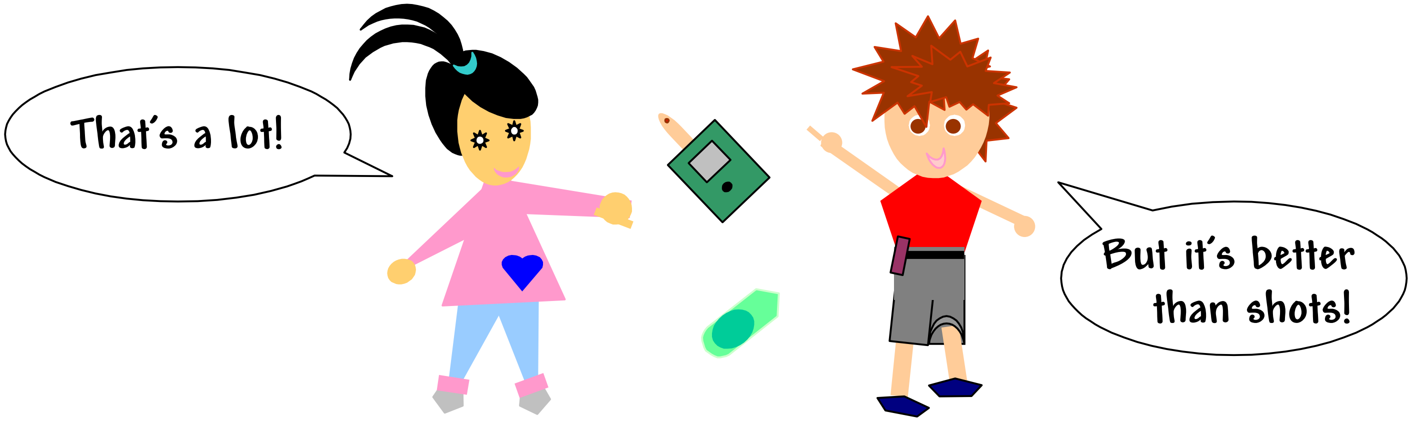
The basal rate changes will be programmed into the pump.

How will you know *when* to make changes?
How will you know *what* changes to make?

Your diabetes log or diary has that information.

REMEMBER:

every time your blood is checked – an entry in the log!

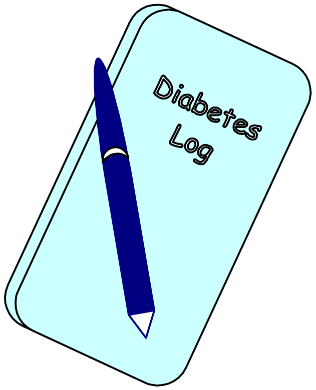


When do you check your blood?

When you wake up and when you go to bed.
Before and after you exercise.
An hour or so after an insulin correction for 'highs'.
A half-hour or so after a carb correction for 'lows'.
Before meals and before carb snacks.

There is other information in your diabetes log.

1) The grams of carbohydrates you eat.
2) The insulin delivered for those carbs.
3) The carb correction for 'lows'.
4) The insulin correction for 'highs'.
5) Your exercise.



This information is important!

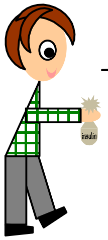
It shows how your body uses energy.

It helps calculate your ratio of insulin to carbohydrates.

It lets you know **when** to change the basal rate.
When the basal rate is off your log will show a pattern.
Highs and lows will *always* happen once in a while.
When they happen several days in a row at the same time, that's a pattern.

The pattern will tell **how** the basal rate should be changed.

Do you need
more insulin?



Do you need
less insulin?

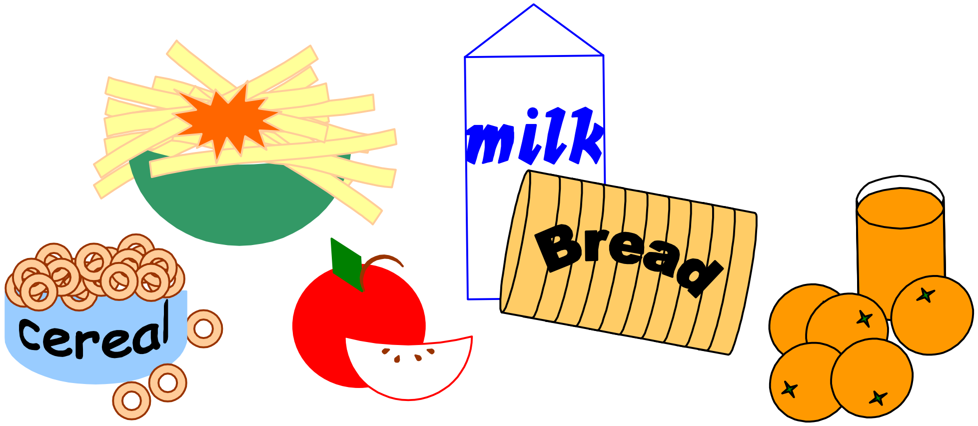
The pattern will tell if the bolus calculation should change.

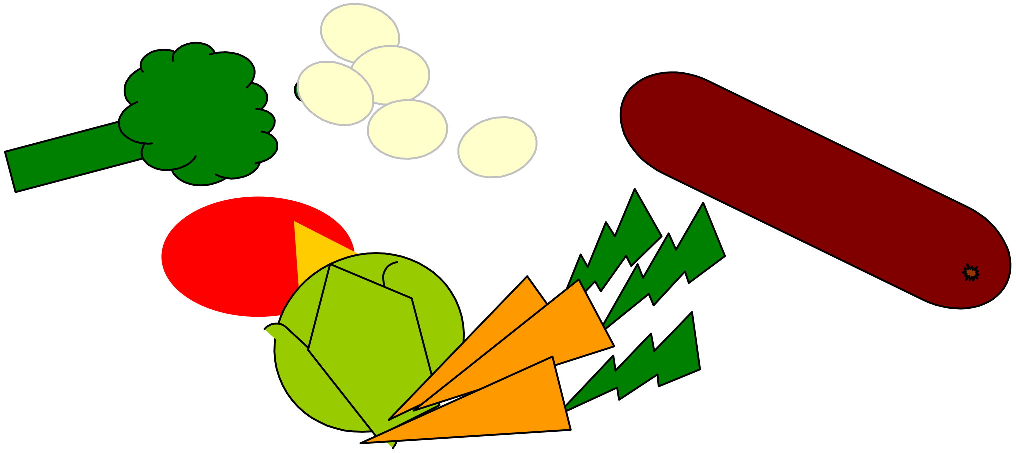
The Bolus Calculation

Units of insulin delivered must balance out the grams of carbohydrates eaten.

Another way to check your insulin use
is a *carb fast*.
The carb fast will show if
the basal rate is correct.

A carb fast means NO eating carbohydrates.





Eat lots of meat, eggs and cheese and yummy veggies* instead.

*NOT tomatoes or starchy vegetables.
Do you know why?

Pumping insulin is a very big decision.

Think about it.
Talk about it.
Talk to your folks and your health care team.
Talk to other kids on the pump,
in person or on the 'net'.

www.kidsrpumping.com
www.childrenwithdiabetes.com
www.Insulin-Pumpers.org

Check out the websites of the major pump providers:

www.animascorp.com
www.disetronic.com
www.minimed.com

It **is** a very big decision.
Adam and Tara are glad they made it!