



# DIABETES IN CHILDREN

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## **Type 1 and Type 2 Diabetes**

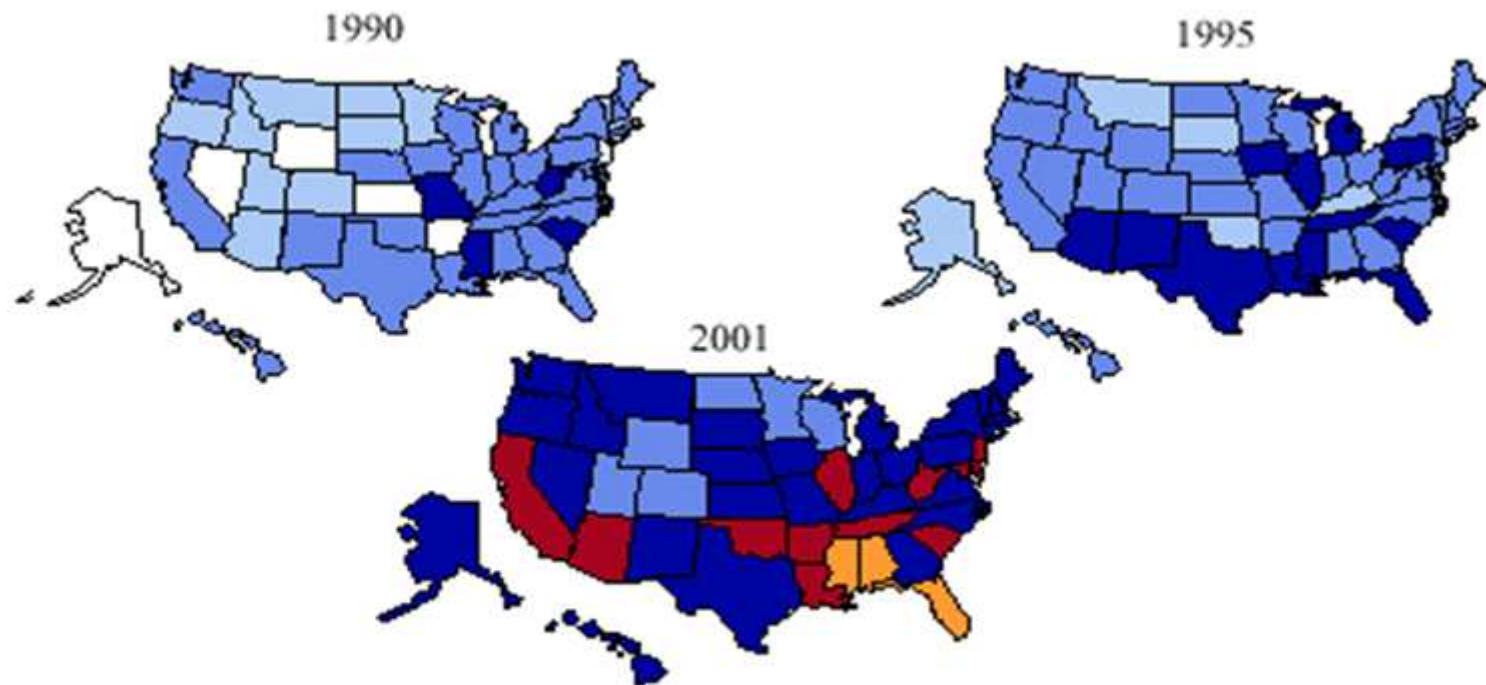
- ❑ **Type 1 Diabetes:** when your body does not make the insulin you need
  - ❑ Treatment requires insulin injections
  
- ❑ **Type 2 Diabetes:** when your body becomes resistant to the insulin your body makes forcing your pancreas to make more and more insulin eventually leading to burn out

## **What is the number 1 risk factor for kids developing Type 2 Diabetes?**

- ❑ During the past 30 years, the number of children diagnosed as being overweight has increased by 100%.
- ❑ In 2008, 31.7% of US children and adolescents ages 2 to 19 years were either overweight or obese.
- ❑ Approximately 9.5% of children 2 years and younger are categorized as obese.

# Diabetes Trends Among Adults in the US

## BRFSS 1990, 1995 and 2001



No Data  <4%  4%-6%  6%-8%  8%-10%  >10%

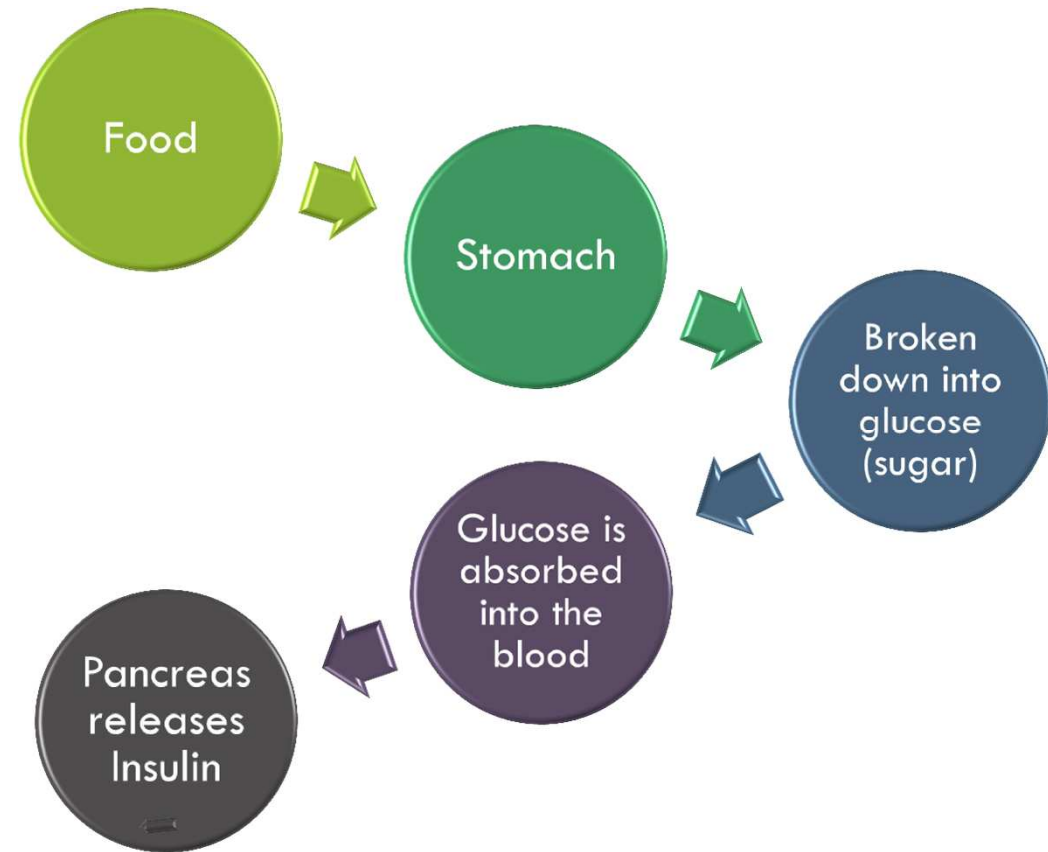
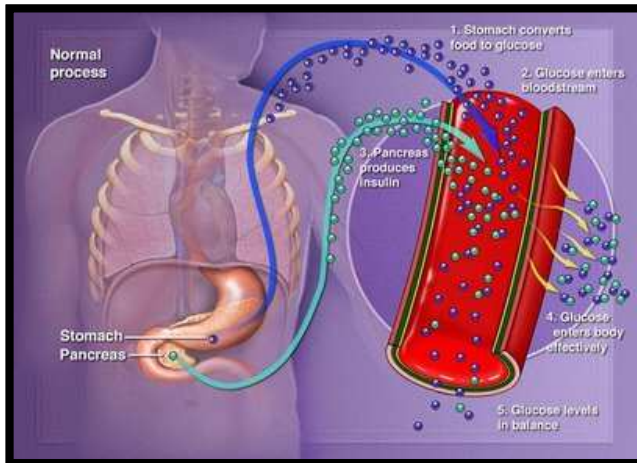
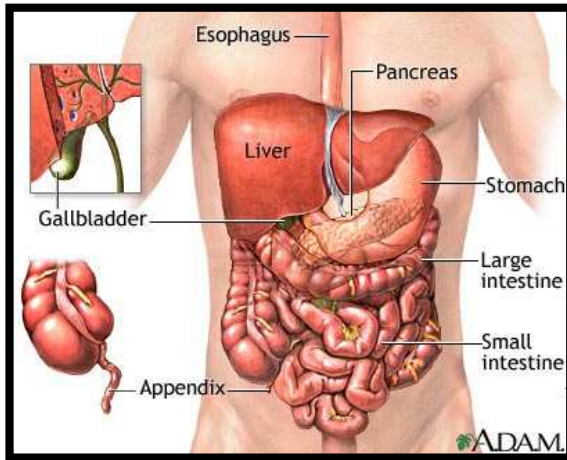
## Who gets diagnosed with Diabetes?

- Mean Age 12-14 years
- Girls > Boys 1.7:1
- Obese BMI >85<sup>th</sup> %
- Strong Family History 74-100%
- Acanthosis Nigricans 56-92%

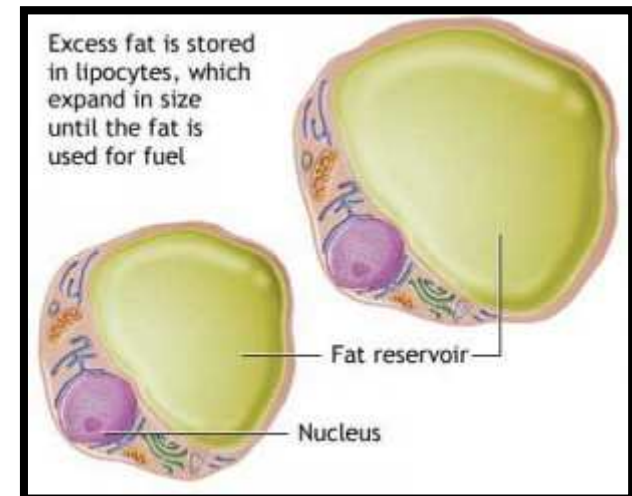
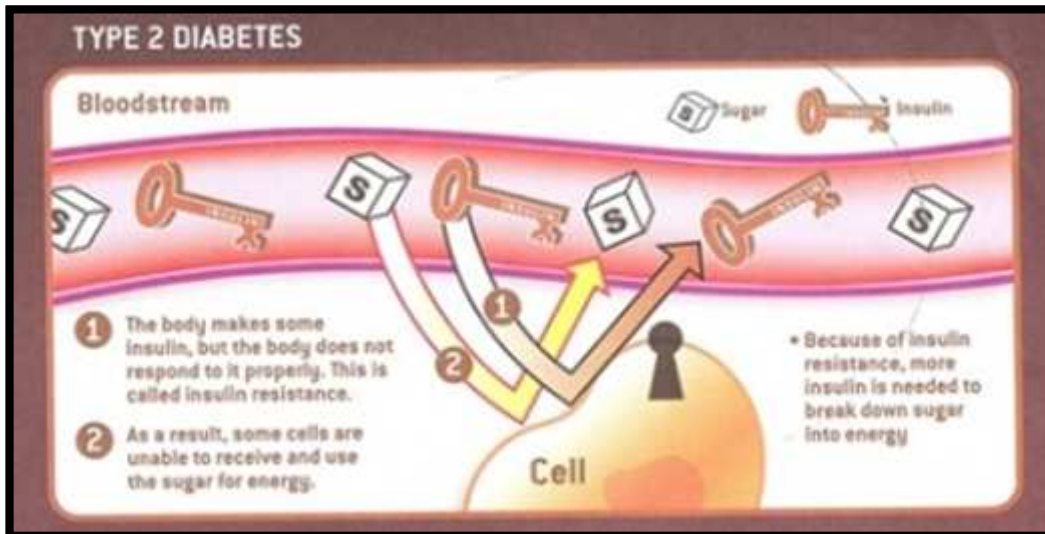
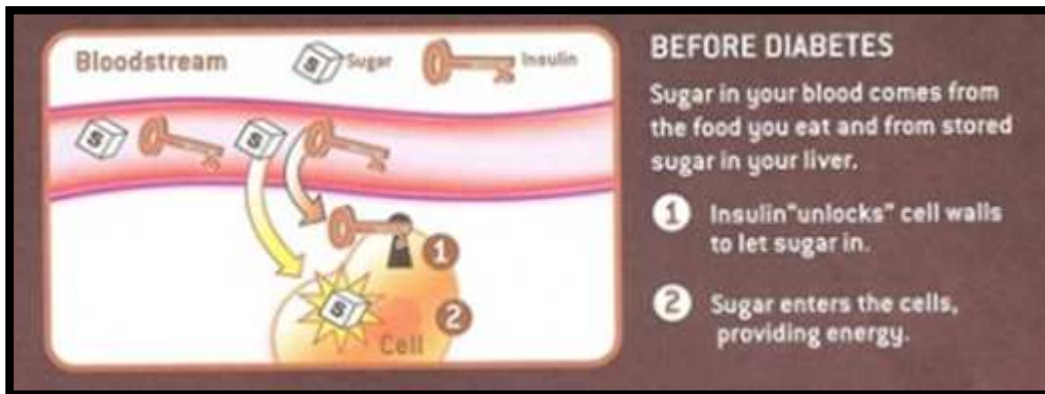
## Adolescent diabetic skin

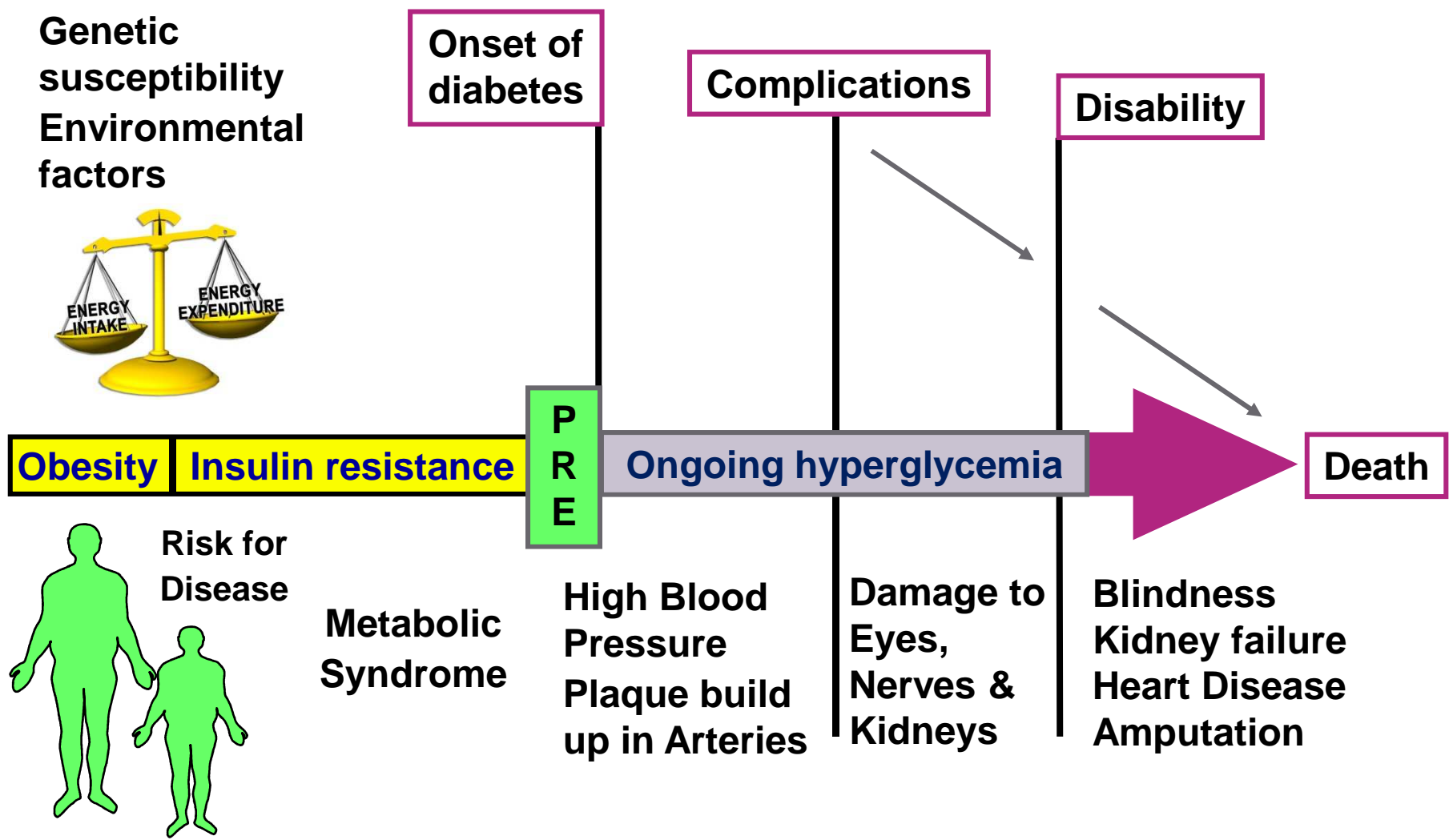


# Sugar process in the body



# What is type 2 diabetes?

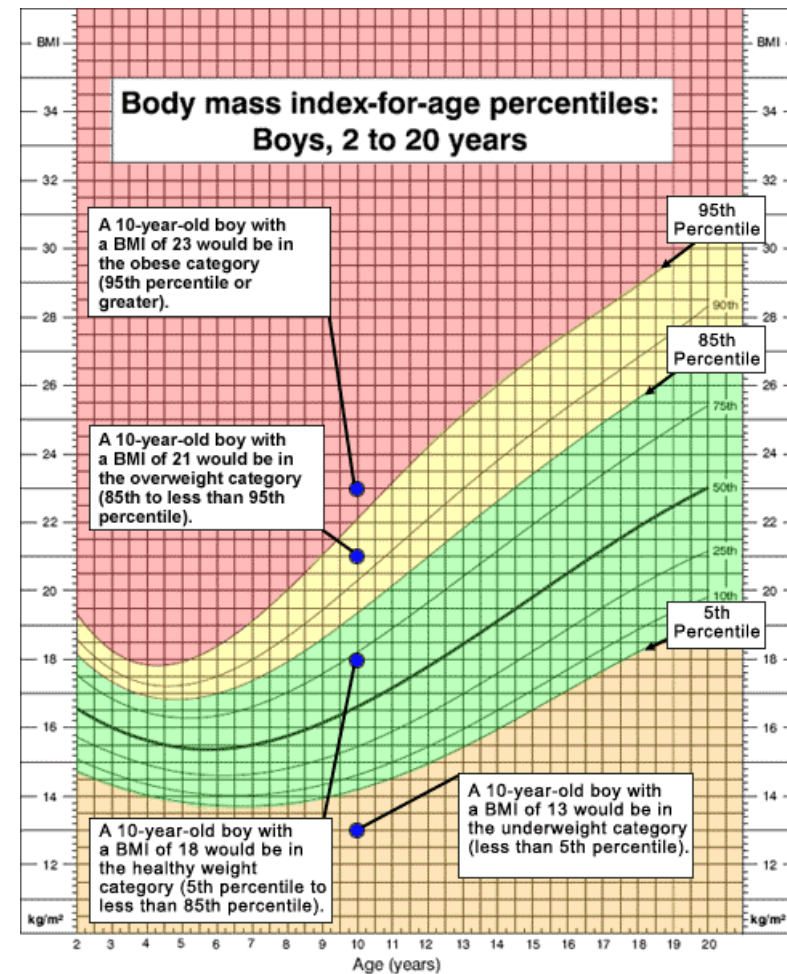




## BMI indicator for diabetes

A BMI of 18-25 is considered normal in Adults.

In kids, normal is determined by plotting them on this BMI curve.



**The 2 main factors that contribute  
to Obesity are:**

**Diet**

**Physical Activity**

## What are your kids doing during the day?



## What are your kids eating?



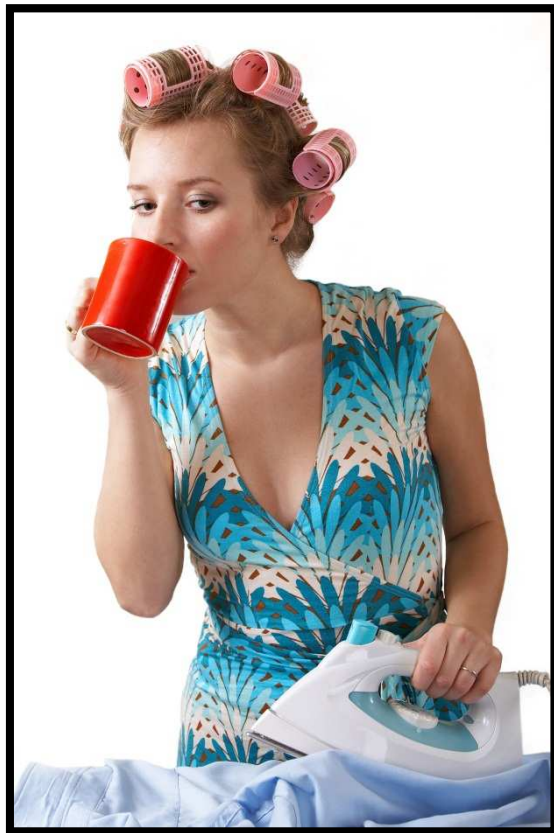
## Key to preventing childhood diabetes

- Encourage a healthy diet and activity level now!



- Whose responsibility is it what this child eats and does during the day?

## Challenges of parenting



**Ask yourself what is really important to me  
for my family?**



## Healthy Diets for your kids

- ❑ Provide at least 5 servings of fruits and vegetables a day for your child.
  - ❑ Only 5% of Americans actually get 5 servings of fruits and vegetables a day.



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## Healthy Diets for your kids

- ❑ By age 2, most children should be drinking low fat milk.
- ❑ Eliminate cokes/sodas.
- ❑ Limit juice to 1/2 cup -1 cup per day.
- ❑ Work with a nutritionist or dietician for diabetic friendly diet plans if needed.

## Healthy Eating Tips for your Child

- ❑ Be a good example in your own eating habits.
- ❑ Set boundaries and stick to them.
  - ❑ Example: Fast food twice a week
  - ❑ Example: Three junk food snacks a week
- ❑ Have a plan for your meals each week.
- ❑ Sit down to dinner as a family.
- ❑ Clean out your refrigerator and pantry!
- ❑ Shop on the outer perimeter of the grocery store.
- ❑ Help your child try a food at least 10 times before you decide they don't like it.

## **Buying Groceries**

- Children wield enormous purchasing power, both directly and indirectly.
- Observe a child and parent in a store. That high-pitched whining you'll hear coming from the cereal aisle is more than just the pleadings of a single kid bent on getting a box of Fruit Loops into the shopping cart. It is the sound of thousands of hours of market research, of an immense coordination of people, ideas and resources, of decades of social and economic change all rolled into a single, "Mommy, pleeease!"

## Where do kids learn about junk & fast food?



- The average American child watches an estimated 25,000 to 40,000 television commercials per year.
- The average preschooler (2-5) sees almost three ads per day for fast food.
- Children see more than just ads intended for kids. More than 60% of fast food ads viewed by children (2-11) were for foods other than kids' meals.

## **AAP television recommendations:**



**< 2**

## **AAP television recommendations**

- The American Academy of Pediatrics now recommends no TV for children under the age of 2.
- The AAP also recommends less than 1-2 hours of screen time (TV/Computers/Cell phone games, etc) per day for kids older than 2.
- According to Seattle Children's Research Institute, 66% of children ages 5 and younger watched 4.1 hours per day. And, this didn't include computer games or cell phones.
- The Journal of the American Medical Association has said that children between the ages of two and seventeen watch an annual average of 15,000 to 18,000 hours of television, compared with 12,000 hours spent per year in school.

## Get active!

- Kids need at least 5 hours per week of physical activity.



# Become one of the 5%



Be one of the 5% of Americans who eat 5 servings of fruits and vegetables a day and get 5 hours of physical activity a week.



- • **Centers for Disease Prevention and Control Tips for Parents:** Information, resources, links, available at [http://www.cdc.gov/nccdphp/dnpa/obesity/childhood/tips\\_for\\_parents.htm](http://www.cdc.gov/nccdphp/dnpa/obesity/childhood/tips_for_parents.htm)
- • **CDC Resource on how to incorporate fruits and veggies into everyday meals:** <http://www.fruitsandveggiesmatter.gov>
- • **Dietary Guidelines for Americans 2010:** Compendium of information on healthful diets, pitfalls, advice, and links to other resources, available at <http://www.dietaryguidelines.gov/>
- • **Smart-Mouth.org:** Videos, games, information, links, available at <http://www.cspinet.org/smartmouth>
- • **UCLA Fit for Healthy Weight Program:** Information, programs, tools, links to other resources, available at <http://www.fitprogram.ucla.edu/>
- • **Weight-control Information Network:** Helping Your Child: Tips, information, links, available at <http://win.niddk.nih.gov/publications/child.htm>
- • **YMCA:** Fitness programs for children (some at reduced fees), education to promote healthy choices, available at <http://www.ymca.net>
- • **Information about Diabetes:** [www.familydoctor.org](http://www.familydoctor.org)