

What is blood pressure?



Blood pressure (BP) measures how hard your heart has to work in order to pump blood throughout your body. The higher your blood pressure, the harder your heart has to work in order to keep pumping blood and delivering oxygen and nutrients!

What is hypertension?



Hypertension means **high blood pressure**. It often has no symptoms, but it increases the risk of cardiovascular disease, including heart attack and stroke.



Systolic blood pressure is the pressure exerted by your heart on the artery walls when it beats. It is the top number of your BP reading.

Diastolic blood pressure is the pressure exerted on the artery walls between beats. It is the bottom number of your BP reading.

What causes it?

Primary hypertension has no known cause.

Secondary hypertension has an identifiable underlying cause. Examples include:

- Metabolic syndromes (i.e. obesity)
- Kidney disease (i.e. polycystic kidney disease)
- Neurofibromatosis
- Certain medications (i.e. glucocorticoids, decongestants, OCP)

What is the treatment?

In many cases, a **healthy lifestyle** is the first line of treatment for hypertension - a heart healthy meal plan, along with exercise, is the best medicine!

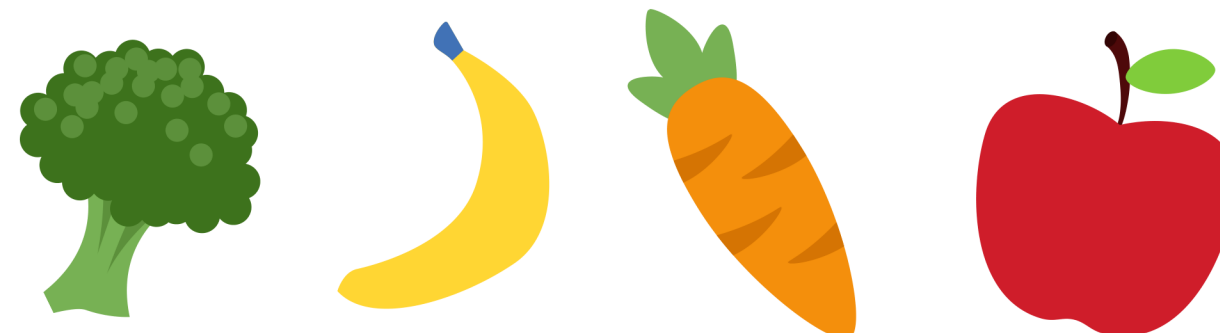
Increase

- Fruits, vegetables
- Low-fat or fat-free milk and other dairy
- Whole grains
- Fish, poultry
- Beans, nuts, seeds

Decrease

- Salt
- Sweets
- Added sugars
- Fats
- Red meats

Focus on **appropriate portion sizes** based on child's age, gender, and physical activity level



Model healthy lifestyle for children:

- Complete and balanced meals
- Encourage sitting and eating together as a family
- Exercise and movement daily

Exercise Recommendations

At least **60 minutes** or more of moderate-to-vigorous physical activity daily, such as:

Vigorous aerobic activity.

These are activities that get your heart pumping and breathing fast:

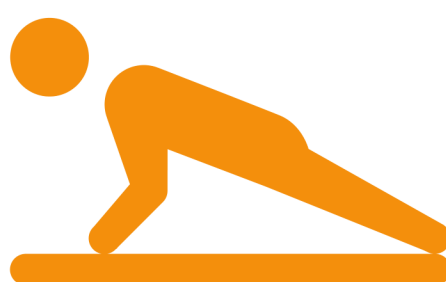
Running Jumping rope
Soccer Biking



Activity that strengthens muscles.

These are activities with weight resistance:

Push-ups Sit-ups
Climbing Weight lifting



Personal Recommendations



Why are we screening your child for hypertension?

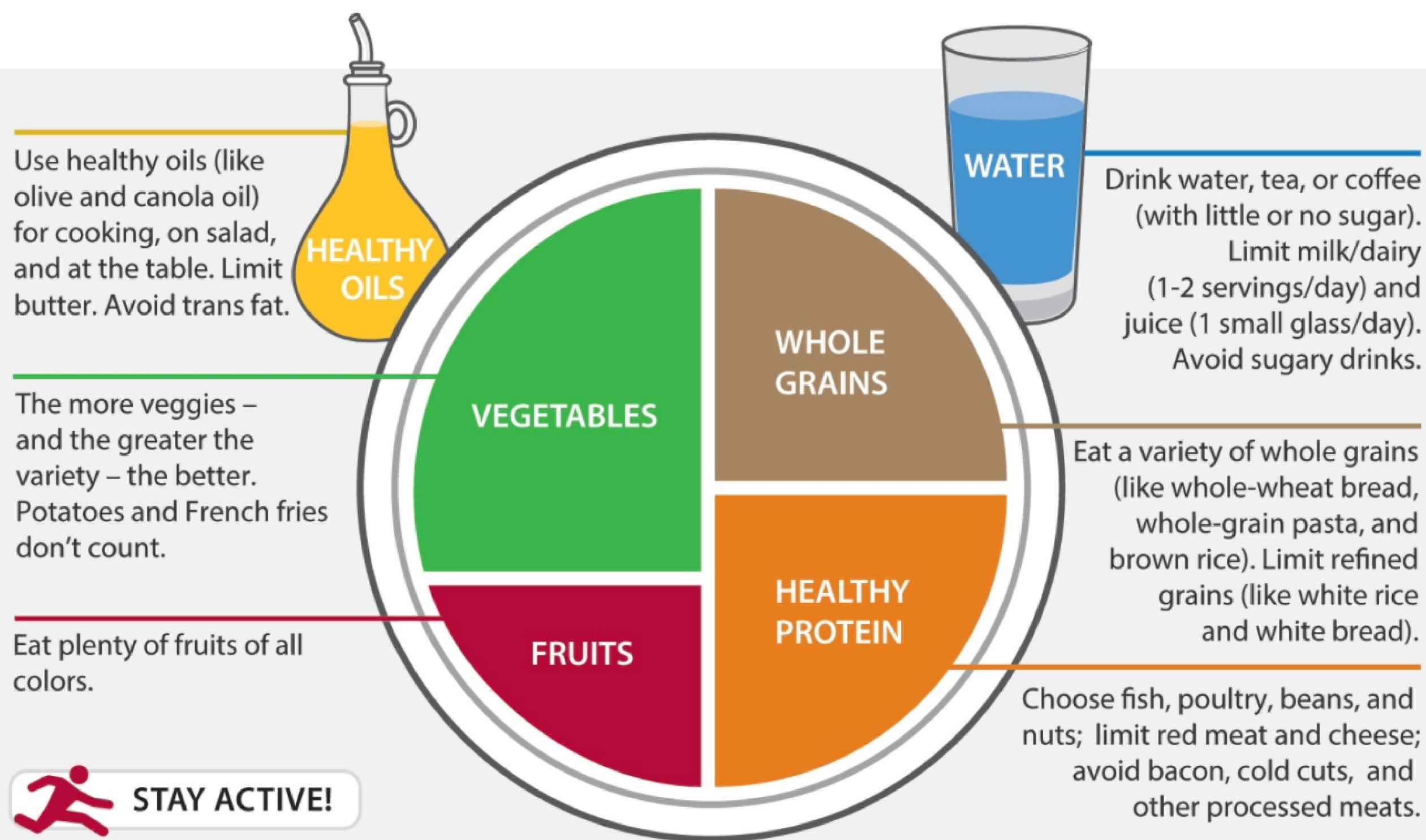
Early identification leads to earlier treatment, which leads to better health outcomes.

What are the benefits to "treatment"?

Treating hypertension with healthy eating and exercise allows us to decrease your child's risk of heart disease in adulthood.

- We recommend that you return in _____ days/weeks/months for follow up with your child's pediatrician.
- We are also referring your child to a _____ specialist for further evaluation of their hypertension.

HEALTHY EATING PLATE



Harvard T.H. Chan School of Public Health
The Nutrition Source
www.hsph.harvard.edu/nutritionsource

Harvard Medical School
Harvard Health Publications
www.health.harvard.edu

Go for it!
Eat these
whenever
possible

- **Vegetables:** non-starchy veggies such as salad greens, green pepper, eggplant, onion, garlic, cauliflower, cabbage, carrots, broccoli, green beans, collard greens, okra, spinach - prepared without added fat or sugar and limiting salt
- **Protein:** legumes/beans, nuts/seeds, low salt peanut butter, soy, tofu, very lean meats, poultry with skin removed, fish, egg whites
- **Grains:** 100% whole grains, brown rice, steel-cut or rolled oatmeal, high-fiber bran cereal, bulgar, barley, quinoa
- **Fruits:** fresh, whole fruit such as apples, oranges, grapefruit, cherries, apricot, plum - prepared without added salt or sugar
- **Fats and oils:** vegetable oils (canola, olive)
- **Beverages:** water, fortified soy milk, skim or 1% low fat milk, non-fat or low-fat yogurt, non-fat or low-fat cheeses,

Slow down!
These foods
can be enjoyed
occasionally.

- **Vegetables:** yams, corn, starchy veggies, like potatoes, limiting salt
- **Grains:** pita bread, rye bread, couscous
- **Fruits:** dried fruits such as raisins, bananas
- **Beverages:** 100% fruit juice, flavored water, Crystal Light

STOP and
think! Limit
these foods
if possible

- **Vegetables:** fried vegetables, those prepared with added salt(i.e. frozen meals), added sugars or sweetened sauces.
- **Proteins:** red meats, high-fat meats including cold cuts, bacon, sausages, hot dogs, Spam, beef jerky, marbled beef, meats high in salt (i.e. frozen meals)
- **Grains:** muffins, coffee cakes, donuts, croissants, Danishes, toaster pastries, cookies, sweetened desserts
- **Fruits:** those prepared in syrups or sweetened sauces
- **Fats and oils:** fats and oils that are saturated or hydrogenated, trans fats
- **Beverages:** sports drinks, soda, sweetened drinks, coffees, yogurt drinks, cocoas, alcoholic beverages
- **Milk products:** whole or 2% dairy products, high-fat cheeses, cream cheese and sour cream, cream, whole milk yogurt, any milk products with added sugars