

HIGH CHOLESTEROL

What is dyslipidemia?



Lipids are the way that cholesterol is packaged in the body. Different types of cholesterol "packages" are called **LDL** (low density lipoproteins), **HDL** (high density lipoproteins), **VLDL** (very low density lipoproteins), and **TG** (triglycerides). Your doctor measures these different cholesterol packages in the **lipid panel**.



Cholesterol is an important ingredient for many things in the body but having too much LDL, VLDL, TG or too little HDL, can cause health problems. When these fat deposits stay in your arteries this is known as **atherosclerosis**, which increases the risk of heart disease.

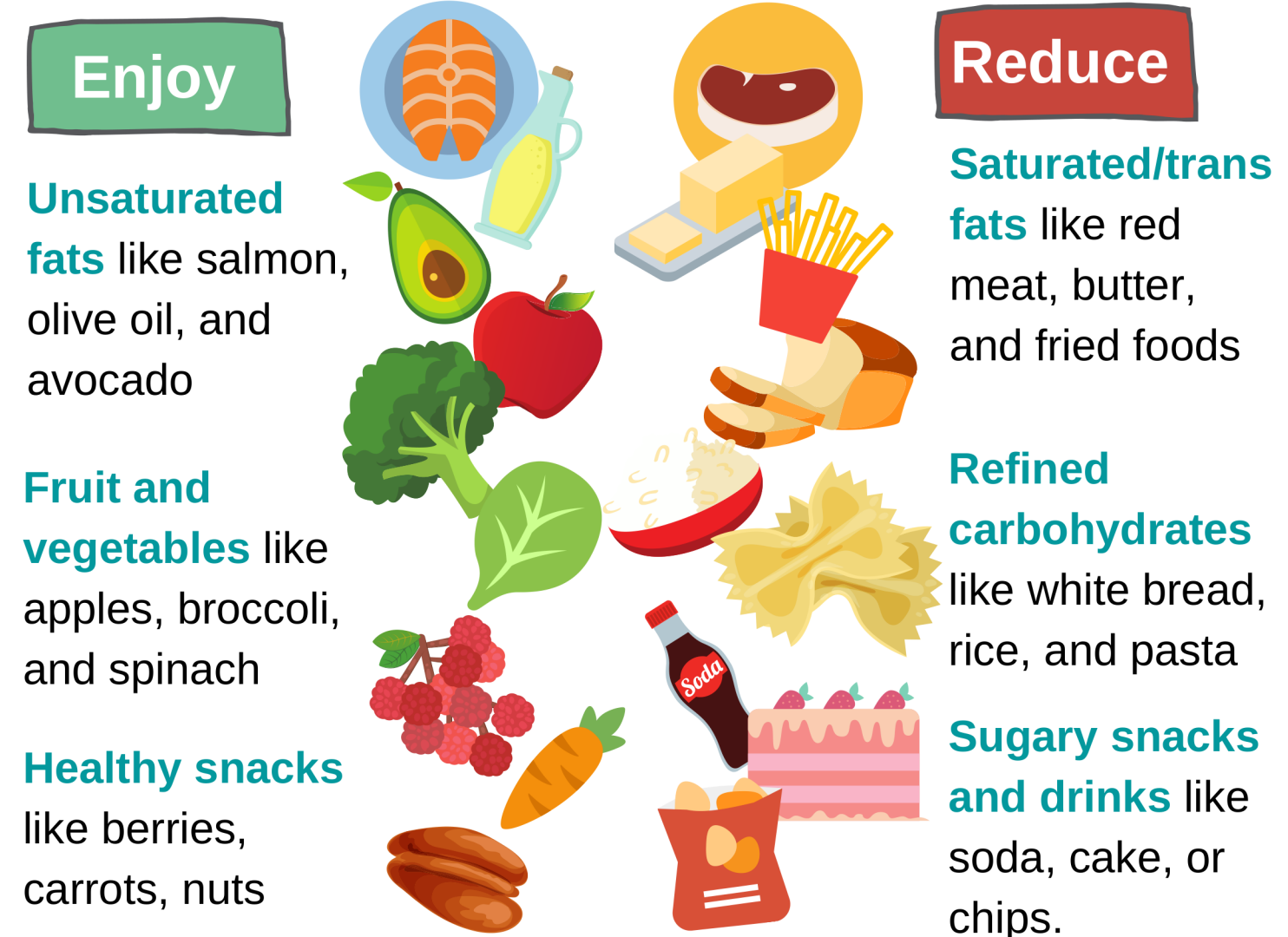
What causes it?

Primary hyperlipidemia is caused by a genetic defect, or mutation, which can be passed down from parent to child (i.e. Familial hypercholesterolemia)

Secondary hyperlipidemia is caused by or associated with some other disease or condition such as dietary causes or metabolic conditions including obesity and type 2 diabetes mellitus

What is the treatment?

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



Enjoy

- Unsaturated fats** like salmon, olive oil, and avocado
- Fruit and vegetables** like apples, broccoli, and spinach
- Healthy snacks** like berries, carrots, nuts

Reduce

- Saturated/trans fats** like red meat, butter, and fried foods
- Refined carbohydrates** like white bread, rice, and pasta
- Sugary snacks and drinks** like soda, cake, or chips.

Model healthy lifestyle for children:

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

*Some children may require medication for treatment.

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:

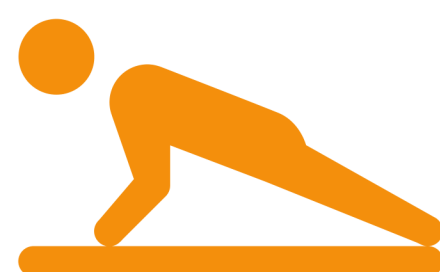
Running Jumping rope
Soccer Biking



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 dyslipidemia?

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

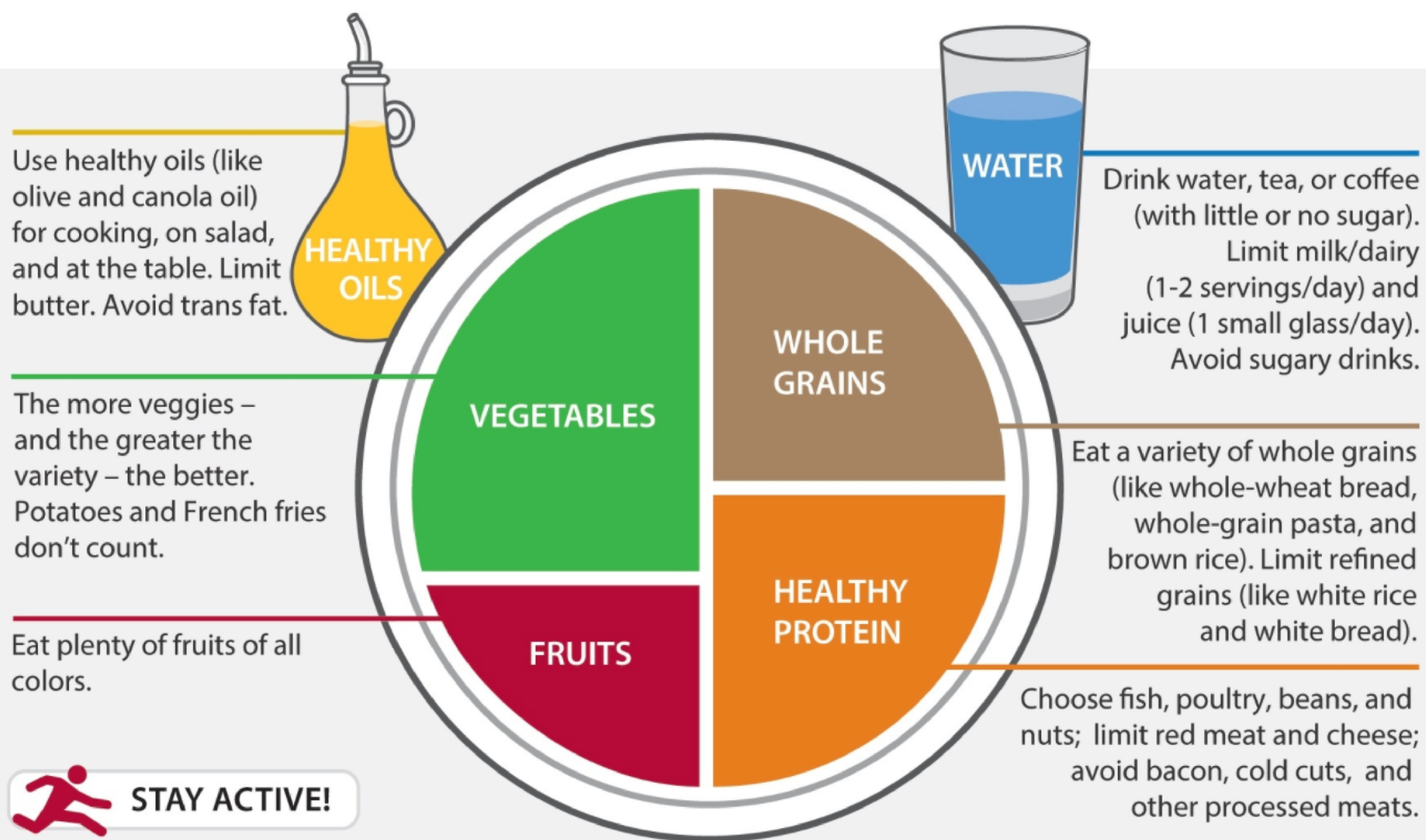
What are the benefits to "treatment"?

Treating hyperlipidemia allows us to control, and potentially reverse, dyslipidemia therefore decreasing your child's risk of heart disease (i.e. atherosclerosis) 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 dyslipidemia.

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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, 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, okay to be packaged in water, avoid when prepared with sugar
- **Fats and oils:** vegetable oils (canola, olive), low calories salad dressing and mayonnaise
- **Beverages:** water, fortified soy milk; low-fat dairy products including non-fat or low-fat cheese, non-fat or low-fat yogurt, skim or 1% low fat milk

Slow down!
These foods
can be enjoyed
occasionally.

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

**STOP and
think! Limit
these foods
if possible**

- **Vegetables:** fried vegetables, those prepared with added salt, added sugars or sweetened sauces
- **Proteins:** high-fat meats including cold cuts, bacon, sausages, hot dogs, Spam, beef jerky, marbled beef
- **Grains:** muffins, coffee cakes, donuts, croissants, Danishes, toaster pastries, bagels, sweetened desserts
- **Fruits:** those prepared in syrups or sweetened sauces
- **Fats and oils:** saturated fats, trans fat and hydrogenated oils
- **Beverages:** sports drinks(added salt), 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