

Blood Pressure Control and Atypical HUS



High Blood Pressure and Kidney Disease

Your kidneys play a role in keeping your blood pressure at the right level. This is important because blood pressure is closely related to the health of the kidneys. When the kidneys have been damaged by atypical HUS the resulting high blood pressure, also called secondary hypertension, can further damage the kidneys.

As blood flows through the veins and arteries, it presses against the walls of the vessels. Extra fluid in your body increases the volume of fluid in your blood and makes your blood pressure higher. Narrow or clogged blood vessels also raise blood pressure.

High blood pressure makes the heart work harder and, over time, can damage blood vessels throughout the body. If the blood vessels in the kidneys are damaged, they may stop doing their job of removing wastes and extra fluid from the blood. The extra fluid may then raise blood pressure even more.

Most people with high blood pressure do not have any symptoms. The only way to know if your blood pressure is high is to have it measured by a health professional. The measurement consists of two numbers that represent the pressure when your heart is beating and when it is resting between beats. A person's blood pressure is considered high if it goes over 120/80. In children, high blood pressure is defined as a blood pressure greater than the 95th percentile for their age, height, and gender (in other words, 95% of kids at the same age, height, and gender will have blood pressure below this number.) Only your doctor can diagnose high blood pressure in your child.

Treating High Blood Pressure

Medicines called antihypertensive lower high blood pressure. Some, called diuretics or "water pills," rid the body of excess fluids and salt (sodium). Others, called beta blockers, reduce the heart rate and the heart's output of blood.

Vasodilators (vas''o-di-LAT'orz) are another useful group of drugs. These can cause the muscle in blood vessel walls to relax, allowing the vessel to dilate (widen). They're especially

effective in the arterioles, the very small arteries that connect larger arteries to the tiny capillaries.

Other drugs for high blood pressure are the angiotensin converting enzyme (ACE) inhibitors, angiotensin II receptor blockers and the calcium antagonists (calcium channel blockers). The ACE inhibitors interfere with the body's production of angiotensin II, a chemical that causes the arteries to constrict. The angiotensin II receptor blockers block the effects of angiotensin II. The calcium antagonists can decrease the heart's pumping strength and relax blood vessels.

In most cases these drugs lower blood pressure. Quite often, however, people respond very differently to them. That's why most patients must go through a trial period to find out which medications work best with the fewest side effects.

Be careful about recommendations you hear on television or radio.

Oftentimes we hear recommendations on television or radio telling those with high blood pressure to make certain changes in their diet. For instance the American Heart Association Nutrition Committee says that to maximize the beneficial effects of a healthy diet on blood pressure,

- Don't eat a lot of salt.
- Eat enough fruits, vegetables, and fat-free and low-fat dairy products.

Such diets are rich in potassium, calcium, magnesium and protein and low in total fat, saturated fat and cholesterol.

However, in people with kidney disease too much protein can prove damaging to the kidneys.

What you hear in the media is meant for the average person, not the child or adult with atypical HUS. Consult with your nephrologist or renal dietitian when deciding the best diet for you or your child with regards to high blood pressure.