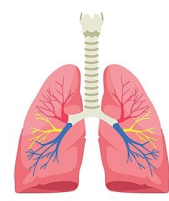
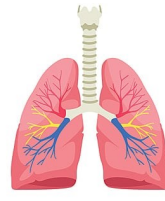
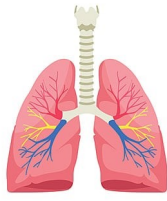
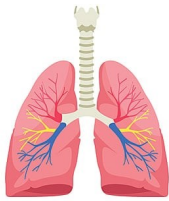


# Pulmonary Hypertension

Pulmonary hypertension (PH) is high blood pressure in the lungs. There are five distinct types of PH. The most common of these is Pulmonary Hypertension due to Left Heart Disease, also known as Group 2 PH. PH can develop as a result of another condition, like lupus or congenital heart disease. There is no cure for PH, but it can be treated with medication and some nutritional changes. Continue reading for more information on this type of medical condition.



## WHO (World Health Organization) Groups of PH

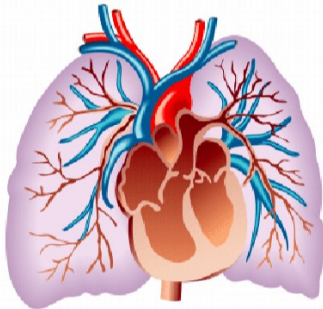
**Group 1:** Pulmonary Arterial Hypertension (the arteries in the lungs become narrowed, thickened or stiff, putting extra stress on the right side of the heart)

**Group 2:** PH Due to Left Heart Disease (issues with how the muscles of the heart squeeze or relax, causing a backup of blood that raises the pressure in the lungs)

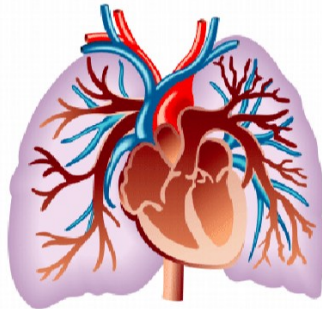
**Group 3:** PH Due to Lung Disease (higher blood pressure resulting from COPD or emphysema)

**Group 5:** PH due to Unknown Causes (PH is secondary to other conditions like sickle cell disease, chronic hemolytic anemia and certain metabolic conditions)

**Group 4:** PH due to Chronic Blood Clots in the Lungs (scar tissue in the blood vessels of the lungs that causes higher BP)



Pulmonary Hypertension



Normal Heart

### Symptoms of PH:

- ⇒ Fatigue
- ⇒ Fainting or light-headedness
- ⇒ Chest pain
- ⇒ Shortness of breath
- ⇒ Palpitations
- ⇒ Edema (swelling)

### Who can be affected by PH?

Anyone can experience PH, but women, non-Hispanic Black people and those over 75 years old are more likely to develop it

### Dietary Changes to Treat PH:

#### Control Salt/Sodium Intake:

Sodium helps to regulate blood volume and fluid balance in the body, so extra sodium can cause fluid buildup (or edema)

#### Monitor Fluid Intake:

Goes hand in hand with watching sodium intake

#### DASH Diet:

a great option for folks with PH, but also for those with diabetes, heart disease, high cholesterol, etc. It focuses on eating more fruits, vegetables, whole grains, lean proteins, nuts, seeds and low-fat dairy.



Fruit	4 - 5 servings /day	<ul style="list-style-type: none"> <li>• 1/2 cup fruit</li> <li>• 1 medium piece of whole fruit</li> <li>• 1/2 cup juice</li> <li>• 1/4 cup dried fruit</li> </ul>
Vegetables	4 - 5 servings /day	<ul style="list-style-type: none"> <li>• 1/2 cup cooked vegetables</li> <li>• 1 cup raw vegetables</li> <li>• 1 cup salad greens</li> <li>• 1/2 cup vegetable juice</li> </ul>
Whole Grains	6 - 8 servings /day	<ul style="list-style-type: none"> <li>• 1/2 cup cooked rice, pasta, cooked cereal</li> <li>• 1 slice bread</li> <li>• 1/2 bagel, English muffin</li> <li>• 1 small muffin, biscuit</li> </ul>
Low-Fat Dairy	2 - 3 servings /day	<ul style="list-style-type: none"> <li>• 1 cup milk</li> <li>• 1 cup yogurt</li> <li>• 1 oz. low-fat cheese (= 2 dice)</li> </ul>
Lean Meat & Poultry	5 - 8 oz. /day	<ul style="list-style-type: none"> <li>• 3 oz. poultry, pork, lean meat (= deck of cards)</li> <li>• 1/2 cup cooked beans, lentils</li> <li>• 1 egg</li> </ul>
Fish & Seafood	2 servings /week	<ul style="list-style-type: none"> <li>• 3 oz. fish fillet</li> <li>• 1/3 cup canned tuna/salmon</li> <li>• 8 - 9 large shrimp</li> </ul>
Nuts & Seeds	4 - 5 servings /week	<ul style="list-style-type: none"> <li>• 1/4 cup unsalted nuts</li> <li>• 1/4 cup sunflower seeds</li> <li>• 1 - 2 tbsp. chia or flax seeds</li> <li>• 2 tbsp. nut butter</li> </ul>
Oils	2 - 3 servings /day	<ul style="list-style-type: none"> <li>• 1 tbsp. butter, margarine or oil</li> <li>• 1 tbsp. mayonnaise</li> <li>• 2 tbsp. salad dressing</li> </ul>

## Pasta with Pumpkin Sauce

Makes 4 servings

### Ingredients:

- 2 cups bow tie pasta
- 2 tsp olive oil
- 1 medium onion, chopped
- 4 cloves garlic, minced
- 8 ounces fresh mushrooms, sliced
- 1 cup low-sodium chicken or vegetable broth
- 1 can (15 oz) pumpkin
- 1/2 tsp rubbed sage
- 1/8 tsp salt
- 1/4 tsp ground black pepper
- 1/4 cup grated Parmesan cheese
- 1 tbsp dried parsley



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### Directions:

1. Follow package directions to cook pasta.
2. While pasta cooks, place a large skillet over medium to high heat. Add olive oil, onion, garlic and mushrooms. Cook about 10 minutes or until onion is soft.
3. Add broth, pumpkin, sage, salt and pepper. Reduce heat and simmer about 8 minutes.
4. When pasta is done cooking, drain and add to pumpkin sauce. Stir to combine.
5. Sprinkle with Parmesan cheese and parsley before serving.

Nutrition info (per 2 cup serving): 196 calories, 8 grams protein, 31 grams carbohydrates, 5 grams fiber, 5 grams total fat, 213 mg sodium

## Minimize Your Risk of Developing PH:

- ⇒ Eat a balanced diet
- ⇒ Enjoy regular physical activity
- ⇒ Quit smoking
- ⇒ Manage stress
- ⇒ Manage conditions such as heart disease, diabetes, COPD, etc.



## Ways to Reduce Sodium Intake:

- ⇒ Read labels: words to look for include “sodium-free” (less than 5mg per serving), “low sodium” (140mg or less per serving), “unsalted” (no salt has been added to the food in processing)
- ⇒ Cook more at home, where you can control the amount of salt added to your food
- ⇒ Use other flavorings, like citrus, garlic, peppers, fresh or dried herbs

**Resources:** <https://phassociation.org/types-pulmonary-hypertension-groups/>

<https://www.cdc.gov/heart-disease/about/pulmonary-hypertension.html>

<https://www.mayoclinic.org/healthy-lifestyle/recipes/pasta-with-pumpkin-sauce/recipe-20146124>

<https://phassociation.org/patients/living-with-ph/diet-nutrition/salt-and-sodium/>

**Consumer-centered access for long-term care information, referrals and assessments.**

**For information, call 518-382-8481, #9, ext. 304**



## Do you have questions or concerns about what to eat?

If you are participating in services offered by Schenectady County’s Senior and Long Term Care services, you are eligible for a free consultation with Debbie Griswold, Registered Dietitian.

Call Cornell Cooperative Extension, Schenectady County at 518-372-1622, ext. 269 to contact or leave a message.

**Check out our website for nutrition resources: <http://ccschenectady.org/nutrition-for-seniors>**

Schenectady County Department of Senior and Long Term Care Services denies no person services or access to service based upon race, color, sex, religion, national origin, marital status and/or handicapping conditions. Schenectady County Department of Senior and Long Term Care Services is primarily funded with County tax dollars. Supplemental funding is through the New York State Office for the Aging under Title III-B/D, III-C-1, III-C-2, III-F of the Federal Older Americans Act, and New York State Expanded In-Home Services for the Elderly (EISEP), Community Services for the Elderly Act (CSE), Congregate Services Initiative (CSI), and the Wellness In Nutrition (WIN).

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