

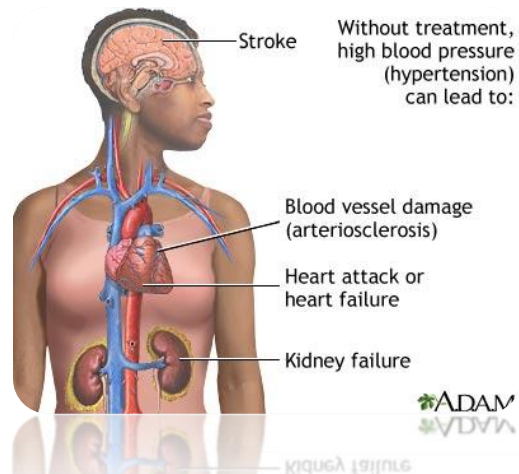
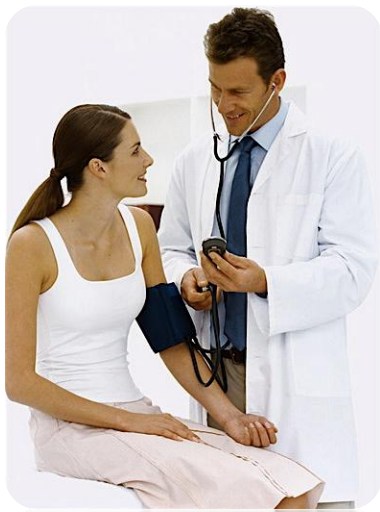
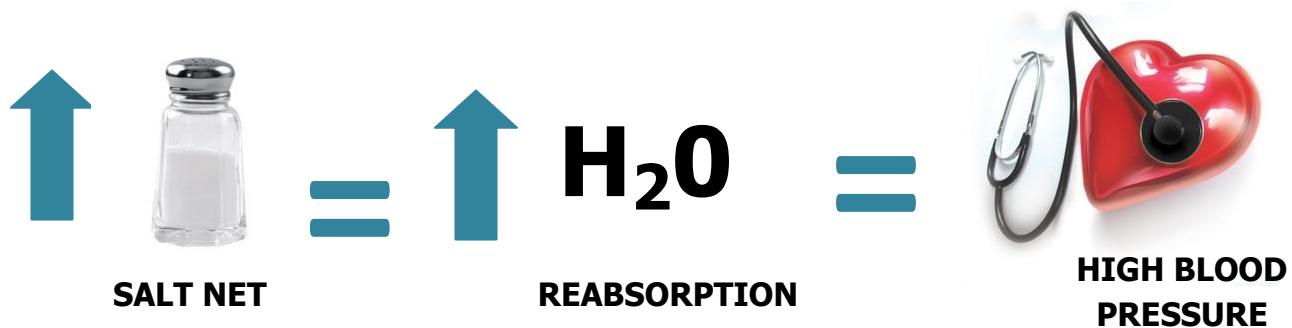
# salt-hypertension and fucoidan

## HOW IT WORKS

**Salt (sodium chloride)** is essential to our bodies. Normally the kidneys control the level of salt. If there is too much salt, the kidneys pass it into urine. But when our salt intake levels are very high, the kidneys cannot keep up and the salt ends up in our bloodstream. Salt attracts water. When there is too much salt in the blood, the salt draws more water into the blood. More water increases the volume of blood which raises blood pressure.

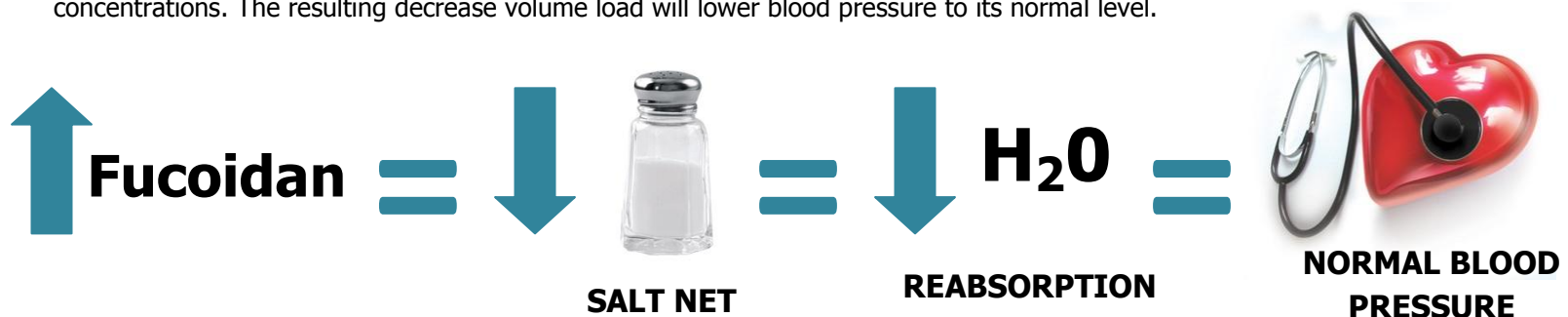
### PATHWAYS OF SALT-SENSITIVE HYPERTENSION

A high-salt diet may alter net salt reabsorption, which at the same time; increases water reabsorption to maintain constant sodium concentrations. The resulting increased volume load elevates blood pressure.



### PATHWAYS TO REDUCE SALT-SENSITIVE HYPERTENSION

**Fucoidan** can lower the amounts of salt present by promoting its removal from the body and decreasing the sodium density in cells. At the same time, fucoidan will decrease the amount of water being absorbed and it may help maintain constant sodium concentrations. The resulting decrease volume load will lower blood pressure to its normal level.



# Information to remember about salt-hypertension and fucoidan

- **Fucoidan**, once it reaches the intestines, reacts with sodium and may promote its removal from the body.\*
- **Fucoidan** will help boost up the immunity.\*
- **Fucoidan** will aid the body to decrease the sodium density in cells.\*
- **Fucoidan** will help promote better digestion.\*

## Hypertension (High blood pressure) Facts

According to the Centers for Disease Control and Prevention, about one out of three U.S. adults—31.3%—has high blood pressure. High blood pressure is a major risk factor for heart disease, stroke, congestive heart failure, and kidney disease. High blood pressure was listed as a primary or contributing cause of death for 326,000 Americans in 2006. 25% of American adults have prehypertension—blood pressure numbers that are higher than normal, but not yet in the high blood pressure range. Prehypertension raises your risk for high blood pressure.

### What is hypertension (HBP)?

\*High blood pressure (HBP) or hypertension means high pressure (tension) in the arteries. Arteries are vessels that carry blood from the pumping heart to all the tissues and organs of the body. High blood pressure does not mean excessive emotional tension, although emotional tension and stress can temporarily increase blood pressure. Normal blood pressure is below 120/80; blood pressure between 120/80 and 139/89 is called "pre-hypertension", and a blood pressure of 140/90 or above is considered high.

### What do the pressure numbers mean?

CLASSIFICATION OF BLOOD PRESSURE		
CATEGORY	SBP MMHG	DBP MMHG
Normal	<120	and <80
Prehypertension	120-139	or 80-89
Hypertension Stage 1	140-159	or 90-99
Hypertension Stage 2	≥160	and ≥100

Key: SBP = systolic blood pressure      DBP = diastolic blood pressure  
Source: U.S. Department of Health and Human Services, Washington, DC.

### References

1. "Amazing Power of Fucoidan: You can Beat Cancer Too" Dr. Daisuke Tachikawa, Noah publishing, Tokyo Japan, 2008
2. "High Blood Pressure (Hypertension)." Mayo Foundation for Medical Education and Research. July 8, 2010.  
<http://www.mayoclinic.com/health/high-blood-pressure/DS00100>
3. "Hypertension." U.S. National Library of Medicine. February 28, 2011  
<http://www.nlm.nih.gov/medlineplus/ency/article/000468.htm>

**Fucoidan**  
Once it reaches the small intestine and large intestine, it reacts with sodium and may promote its removal from the body.\*



**LESS SALT**



**LOWER Blood Pressure**



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