

A physician is called in consultation and take only the systolic pressure. The excitement caused the patient by his coming may have run the systolic 15 or 20 millimeters above that which the attending physician regularly found it, not so would this be found as to the diastolic.

Janeway cites two cases illustrating cardiac strength, which also very forcibly show the value of the diastolic pressure. A man aged 26, while at rest had a systolic pressure of 135, a diastolic of 100, and a pulse pressure of 35. After running up three flights of stairs his systolic was 175, his diastolic 120, and his pulse pressure 55, showing a good cardiac strength. Another man whose systolic pressure was 140, diastolic 100, and pulse pressure 40, after two minutes' exercise he had a systolic pressure of 155, a diastolic of 125, and therefore a pulse pressure of only 30, which shows a deficient musculature. If the systolic alone had been considered we might have thought the increase from 140 to 155 indicated a better heart than that of 135 to 175, but the diastolic had increased disproportionately in the latter, so giving us a lessened pulse pressure and indicating a lack of reserve vitality.

*The Gravity of High Tension.*—One very important effect of high tension is on the arteries themselves. The fibrous coat may be regarded as practically fixed in the matter of distention. Now if the tension in the blood be increased the inner coat of the vessel will be pressed outwards and as the fibrous coat is fixed, the vasa vasorum will be compressed between the two coats and hence the nutrition of the vessels will be interfered with and degenerative changes will ensue due to this lack of nutrition and the efforts of nature to overcome the abnormal tension. Also this increased tension will mean extra work for the heart. This in time will cause hypertrophy, then the normal action of the coronary vessels will be adversely affected and this will result in degenerative changes in the heart tissue with the usual sequence of results.

If we follow this inquiry in the various systems of the body we will note similar results. Take the digestive system in big eaters, and most people eat too much. More food is taken than is required and vessels that are by nature intended to supply blood for normal conditions have in these cases not only to do so to dispose of the food required to sustain the body, but also of the excess that is being continually taken, hence a high pressure in the digestive system and to a lesser extent hypertension generally with its accompanying ill results. Such also will be the results in the vessels of the stomach when that organ has to masticate for the teeth. Long continued strain either physically or mentally gives the same sequence of events. As a corollary it will