

in the aorta is about 175mm., in the brachial 120mm., in the radial 115mm., and in the capillaries about 60mm.

In its common acceptance it is restricted to the arterial system and in that system to the tension in the radial or brachial artery. The pressure in the latter is slightly higher than that in the former. Blood pressure is the measure of the heart's power to force the blood through the arterial system. Four of the main factors in maintaining this pressure are, the energy of the heart, the resistance of the arterioles, the elasticity of the vessel walls, and the amount of the blood in the vessels.

There are some other terms we use that may be defined as they are commonly understood. There is the *systolic pressure*, which is the maximum pressure in a given vessel during a heart systole. The *diastolic pressure*, which is the lowest pressure in a given vessel during a heart diastole. The *pulse pressure* which is the variation during a cardiac cycle, that is, it is the difference between the systolic and diastolic pressures. The *mean pressure*, which is the average pressure at a given point. This, however, is not the half of the blood pressure, because the pressure at the systolic level remains for a much shorter time than at the diastolic level, also the first part of the drop is more rapid than the latter part, and these will vary in different individuals, the mean pressure may approximately be taken as about one-third of the pulse pressure. There is the *lateral pressure*, which is that exerted by the blood against the wall of the vessel. Then there is the *end pressure*, which is that exerted against an obstruction in the lumen of the vessel, and is of course greater than the lateral pressure, the difference being the effective pressure that produces the blood flow at the point.

The easiest way to obtain the systolic and diastolic pressures is by the armlet method and the stethoscope. Place the armlet about an inch or so above the elbow and the bell of the stethoscope on the brachial artery just below the armlet. As the armlet is inflated a pulse beat is faintly heard. This becomes rapidly loud, then slowly lessens until no sound is heard. Now let a little air slowly escape and the pulse beat will return. The reading at which it is first heard on its return will be the *systolic pressure*. As more air is allowed to escape, the loudness or amplitude of the beat will be heard increasing until it reaches its highest limit, then it quickly dies away. The reading when this fullest sound is heard will indicate the *diastolic* and corresponds with the time when the pressure of the armlet on the vessel is equal to the pressure inside the vessel. The fibrous coat with the encompass-