

*The systolic murmur of aortic stenosis* is usually a loud, rough murmur audible in the second right intercostal space close to the sternum. It is propagated toward the carotids in the neck. On palpation over the aortic area a systolic thrill can be felt. The aortic second sound is feeble or absent. The pulse is small and anacrotic. The pulse rate is often slow. The heart's apex is displaced somewhat downward and to the left. Sometimes a systolic murmur in the second right intercostal space is due to dilatation of the aorta (lues; arteriosclerosis). If suspected, the proof of such dilatation can be brought by percussion, and especially by roentgenoscopy; and to determine ætiology, the Wassermann test may have to be applied. Definite aortic stenosis is cause for unconditional rejection. Luetic aortitis disqualifies for full military service, but if without symptoms does not disqualify for special service.

*The diastolic murmur of aortic insufficiency* is usually a soft aspirative murmur replacing the second sound or following it in the second right intercostal space. It may be short, but is oftener long and decrescendo in character, occupying a large part of the long pause. It is often propagated along the left margin of the sternum and may often be best heard in the third and fourth intercostal spaces on the left side. It is surprising how often such a murmur is entirely overlooked, or mistaken for a systolic murmur, even by medical men supposedly well-trained. The murmur can often be better heard with the naked ear or the monaural stethoscope than with a binaural instrument. Aortic insufficiency is associated with a strong, circumscribed dome-like apex impulse (*choc en dome*), a collapsing pulse at the wrist, visibly pulsating carotids, pistol-shot sounds in the peripheral arteries and enlargement of the left ventricle. In the young recruit, aortic insufficiency when associated with mitral disease is most often a result of rheumatic endocarditis; when not associated with mitral disease, it is most often due to luetic aortitis. In older men, aortic insufficiency is often due to atherosclerotic changes in the aortic valves.

*The diastolic murmur of mitral stenosis*, often rumbling in character and associated with a palpable thrill, is usually audible only in a circumscribed area near the apex of the heart. Sometimes the murmur is audible only at the very end of diastole (presystolic), terminating in an abrupt snapping first sound. In many cases of slight mitral stenosis, no murmur can be heard, the diagnosis depending then upon the existence of a snapping first sound associated with a strongly accentuated (and often duplicated) pulmonary second sound. Mitral stenosis is always due to a preceding endocarditis. It is in my experience one of the conditions most often overlooked by examiners of recruits.

*The systolic murmur of mitral insufficiency* is a blowing murmur, usually maximal at the apex where it replaces the first sound, propagat-