Transient Abnormal T Waves in the Normal Adolescent*

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The serial tracings taken 15 minutes apart are from a clinically normal 18-year-old girl with an innocent heart murmur. The initial resting electrocardiogram (Fig. 1) is abnormal because of the low voltage of all T waves, with definite inversion of T in V3. Fifteen minutes later, the tracing was repeated and normal T waves are present (Fig. 2). Both tracings were taken in the fasting state in the recumbent position.

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Many benign factors may cause "functional" T wave changes. Therefore, abnormal T waves are sometimes seen in normal patients. These changes are usually temporary. They may be caused by the effects of respiration, posture, position, sympathetic-parasympathetic imbalance (note the wandering pacemaker in lead V2), cooling of the precordial region, food intake, rotation of the heart, anxiety, fear, drinking ice water, and hyperventilation.

Electrocardiographers must be alert constantly in order to avoid false interpretation.
of the electrocardiogram which may lead to iatrogenic disease. Clinical knowledge of the patient is indispensable, for when unexpected abnormalities are encountered, the findings should be checked routinely by repeating the tracing.

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FIGURE 2: Tracing taken 15 minutes later.

USE OF VOLUNTEERS IN TUBERCULIN TESTING PROGRAMS

One way to solve the problems of cost and the use of professional time in a tuberculin skin-testing program is to use lay and professional volunteers. In the community of Santa Fe, New Mexico, the health department found that their public health nurses were needed only in the areas of health education, in-service training, program planning, and followup care for patients. Married and retired nurses volunteered to give the skin tests. Nonprofessional volunteers did all of the record work and interpreted the program to the public. The concept of "volunteer" was changed and broadened. Physicians volunteered assistance in preparing records and streamlining the program; radio and newspaper personnel planned and organized publicity with the help of the Health Education Division of the health department and staff members of the department volunteered for night work so that the clinics would be open when father came home from work and took his family for testing.