Breathing seems to be a simple process, one that requires no thought. However subconscious reflex control of respiration is complicated and delicately adjusted to the needs of the body. In addition to supplying the body with oxygen and removing carbon dioxide, breathing generates all vocal sound. Normally one does not have to think about breathing for conversational speech, yet during performance one becomes quite conscious of the need for adequate and efficient control of breath.

Medical science has been concerned with the normal physiology, diseases and specific pathological conditions in relation to respiration, and with normal respiration in athletes at high altitudes or using underwater apparatus. The finer points of professional voice production, whether singing or the varied forms of speech, have not been studied in detail from a scientific standpoint, or with any sizable number of subjects. Bouhuys (1966, 1968), Sears (1968, 1973, 1974, 1977), and Proctor (1968, 1980) have discussed breathing patterns in singing and the studies have used very few singers. Bishop (1968), Mead (1968), Campbell (1969, 1970) and Newsom Davis and Sears (1970) have made valuable studies of the function of respiratory muscles (see Wyke, 1974 for review). As the body of scientific literature about respiration increases, so do the discrepancies in conclusions reached. One reason is that investigators assume that all their subjects are using a common pattern of breathing. The other is that the scientists are often contradicted by the teachers of singing who have adhered to a tradition that has been handed down from one generation to another. As a result, there are almost as many techniques of breathing as there are performers; and the researchers and teachers are not seeing any uniformity of performance. Instead they are observing a compendium of personal experience, idiosyncracies, and to add to the problem, are using a confusing terminology.

Despite the contradictions, this research provides a basis from which further more objective studies can proceed. Even now there is much of value for the teachers who wish to use an informed and reasoned approach
when coaching students in the process of breathing. This chapter discusses posture and breathing in the light of results of current research, analysis of singing techniques, and observation of normal and abnormal breathing patterns in singers, actors, athletes, and patients with respiratory disorders and diseases.

**Posture**

Posture determines the alignment and balance of the body, and good bodily alignment is the beginning of efficient breathing and fundamental to healthy singing.

In this era of the casual, it is rare to see someone with proper physical poise (Fig. 6). Young children with poor posture are often not corrected; and adolescents—and even adults—are anxious to blend in with stoop-shouldered peers. However, singers, actors, and dancers cannot survive professionally unless they can choose and govern their posture precisely. Therefore teachers of the performing arts must correct the bad postural habits of a generation of slouchers. The task of changing habits is formidable, however proper alignment improves health, performance and one’s self-image. For centuries Oriental thinking and philosophy have stressed the interdepen-