Prostate cancer is the most common male cancer and represents a major health issue in the United States. It affects one in eight American men and is the second-leading cause of cancer death after lung cancer. In 2006, approximately 234,460 new cases of prostate cancer will be diagnosed and 27,350 deaths are expected. About one third of newly diagnosed cases are considered locally advanced (American Cancer Society, 2006). At least 30% of men who are treated with local measures such as radiation therapy will relapse (Han et al., 2003; Hanks et al., 1994). Although metastatic prostate cancer usually responds well to androgen-deprivation therapy, androgen-independent (hormone refractory) prostate cancer develops within one to three years (Han et al.).

Risk Factors

Risk factors associated with prostate cancer include age, geographic location, race, family history or genetic mutations, hormone levels, type of employment, and failure to seek regular screening (see Figure 1). Age appears to be the most important risk factor for developing prostate cancer. As men get older, their risk of developing the disease increases. Very few men in their 20s and 30s are diagnosed with prostate cancer, but, by age 50, nearly 33% of all American men have small prostate tumors. The percentage increases to 75% by age 80 and to about 90% by age 90 (Bostwick et al., 2004). However, the percentages are misleading. Not all men diagnosed with prostate cancer need treatment for the disease. Cancers that require treatment depend on stage at diagnosis, Gleason score, and other comorbidities.