

TEXT SUPPLEMENT (Ch 1): Gender Bias

Avoiding gender bias. Before the 1990s, many animal and clinical trials were done only on male subjects; one reason frequently given for this practice was to avoid the variable of hormonal fluctuations of the female reproductive cycles. Many test results based on male-only studies were extrapolated to women, and drug doses and other treatments were prescribed for women on this basis. In several cardiovascular conditions, including heart attacks and strokes, it now appears that men and women respond differently to certain drugs, and that drug doses calculated for men may be inappropriate for many women. When Dr. Bernadette Healy was head of the National Institutes of Health, she criticized a number of studies that had been done only on men because she thought they would have been more

appropriately done on women alone or on both sexes. One of the studies, for example, was based on the observation that pregnant women almost never have heart attacks. To test whether estrogen was the cause of this protective effect, the effects of estrogen therapy on heart attack rates was measured in *men*! Largely as the results of Dr. Healy's efforts, National Institutes of Health guidelines now require studies to be done on both sexes when appropriate. Although this is an issue of good experimental procedure, the issue was first raised as an ethical question of unfairness to women. Dr. Healy and others claimed that women were getting potentially substandard medical care if they were treated with drugs that had been tested on men only and with doses calibrated for male patients.