Although few studies have been performed to date, recent evidence suggests that the ability of the immune system in older individuals to respond to the stress im– posed from a single bout of exercise is maintained with age. The effect of a single bout of exercise on immune function in young (23 2 yr) and elderly (604 yr) subjects showed that in response to exercise the young subjects had a decrease in PHA proliferative capacity (181). Both young and old subjects had an increase in the NK activity in response to exercise (51, 73). IL–1B and TNF–a secretion can be increased the morning after ex ercise without any current changes in mononuclear cell numbers, indicating that the monocytes are activated in relation (to eccentric exercise (42)).