

# Women's Physical Activity in Leisure, Occupational and Daily Living Activities

In recent years, greater attention has been focused on the relationship between women's overall health and physical activity. The prevalence of women's participation in physical activity has increased, due in part to the implementation of recommendations made by national organizations,<sup>1</sup> and implementation of the Title IX Education Amendments of 1972, which provides for equal opportunity for women in sporting activities in schools. Despite these advances, only 15% of US adults participate in regular and vigorous exercise.<sup>1</sup>

## Health-Related Benefits and Concerns Associated with Physical Activity

Women's participation in moderate intensity activity performed for 30 minutes on most days of the week is associated with a number of health-related benefits:

- Decreased risk of developing cardiovascular disease.<sup>2-6</sup>
- Decreased risk of developing non-insulin-dependent diabetes mellitus.<sup>7-9</sup>

- Decreased risk of osteoporosis.<sup>1,10-12</sup>
- Weight management and obesity prevention.
- Increased proportion of muscle mass to fat mass.<sup>1,13-18</sup>
- Physical activity is a factor in reducing stress levels and improving mood. Inactive persons are reported to be as much as two times more likely to experience symptoms of depression than physically active individuals.<sup>1</sup>
- Availability of physical activity contributes to attendance at smoking cessation sessions, and long term quit rates are found to be higher for women participating in exercise sessions.<sup>19</sup>

Current research results neither support nor refute a relationship between physical activity and hormone-dependent cancers in women: some studies do however indicate that physical activity may be protective against breast cancer.<sup>20</sup>

## Reports of Participation in Physical Activity, Females Aged 18+ Years<sup>1</sup>

Years	No Activity (%)	Regular, Sustained Activity (%)	Regular, Vigorous Activity (%)
1986	34.3	18.1	18.8
1987	33.9	17.6	18.8
1988	31.5	19.6	20.0
1989	33.6	18.0	19.0
1990	32.3	18.5	19.4
1991	32.8	18.3	18.9
1992	31.4	18.4	19.7
1993	n/a	n/a	n/a
1994	33.0	18.1	18.7

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Physical activity can also negatively affect women's health:

- Exercise done improperly can result in musculoskeletal injuries, metabolic abnormalities (e.g. hyperthermia, electrolyte imbalance, and dehydration for those who exercise in extreme conditions or for excessive periods of time), anovulation, amenorrhea, and decrease in bone mass.<sup>1</sup>
- Efforts by women, especially young women at puberty, to balance good health, peak performance (for athletes) and appearance result in the "female athlete triad," consisting of disordered eating, amenorrhea, and osteoporosis.<sup>21</sup> Excessive exercise contributes to this triad.<sup>22,23</sup>

### **Physical Activity During Pregnancy and Lactation**

Physical activity can have both positive and negative implications for lactating or pregnant women and their offspring:

- Exercise during pregnancy and lactation may be associated with changes in uterine blood flow, hyperthermia, metabolism of energy nutrients, fetal hypoxia, and uterine contractility increasing the risk of pre-term delivery.<sup>24,25</sup>
- Overall, exercise during pregnancy does not appear to have significant positive or negative effects on fetal well-being, but can improve maternal cardiorespiratory fitness, and may increase maternal well-being.<sup>1,26</sup>
- Exercise during lactation is not associated with significant differences in maternal body weight or fat loss, volume or composition of breast milk, or infant weight gain.<sup>27</sup>
- Physical activity is associated with a small but significant decrease in weight retention at 7 to 12 months postpartum.<sup>28</sup>

### **Interventions to Enhance the Physical Activity Behavior of Women**

Research has identified several psychological, social and environmental variables that are associated with patterns of physical activity behavior. Marcus and Forsyth (1998)<sup>29</sup> cite several psychological theories which can contribute to the tailoring of a physical activity intervention:

- Motivational readiness points toward using a cognitive intervention rather than a behavioral strategy depending upon what stage of motivation (e.g. pre-contemplation, contemplation, preparation, action or maintenance) a person is in.
- Decisional balance refers to the careful consideration of the pros and cons of choices in activity.
- Self-efficacy, relating to a person's confidence in being able to successfully perform a specific behavior.
- Social support for an intervention can be informational, instrumental, motivational, or modeling.

Tailoring an intervention giving consideration to these conceptual frameworks, personal activity preferences, environmental factors such as safety and access, and a woman's stage in life may improve the likelihood of effectiveness.

### **Issues for Policy, Practice and Research\***

- Greater access to community facilities such as schools, religious institutions and community centers at non-business hours can make participation in physical activity easier for women.
- Increasing the level of safety for women by greater availability of female physical education instructors and more street and facility security may increase women's participation in fitness activities.

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\* Given the formative nature of our research on this topic, this material does not reflect an exhaustive list of potential issues of concern. Rather, the material below reflects selected preliminary ideas generated to stimulate dialogue and further study. In addition, certain issues may have been intentionally omitted from this section in favor of their incorporation in other materials prepared as part of a broader initiative to review the state of the field of perinatal and women's health

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- Work sites can be used to promote and provide opportunities for physical activity thereby reducing the time and logistical constraints associated with the multiple demands on women of employment, child care and homemaking.
- Primary care providers have the opportunity to routinely assess, counsel women on, and potentially positively influence their approach to physical activity.
- Given the limited amount of time clinicians can spend with patients, paraprofessional and/or peer health educators could enhance providers' capacity for engaging women in physical activity.
- Scientific studies on the relationship between type, intensity, and duration of physical activity on fitness, health, disease and menopause symptoms in women needed to inform activity recommendations are limited.

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Copies of this and the additional Issue Summaries listed below can be accessed by contacting: National Maternal and Child Health Clearinghouse at 703/356-1964.

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