

## SWAN Fact Sheet: Physical Functioning over the Menopause Transition

### Women and Physical Functioning

- Physical functioning is one's ability to do common tasks like walking, climbing stairs, bending and lifting things.
- In the United States, women tend to live longer than men but have more disability and experience more difficulty in physical functioning.
- The midlife (40-64 years) is an important time for changes in physical functioning for women.

### What have we learned from SWAN so far?

- Nearly 1 in 5 women ages 40-55 years reported some limitations in physical functioning. Difficulties in physical functioning increase with age such that by 56-66 years of age, nearly 50% of women had physical functioning limitations.<sup>1-3</sup>
- Improvement in physical functioning is also common during the midlife.<sup>2</sup> Among SWAN women, the proportion of women whose functioning improved ranged from 14% to 55% depending on race-ethnicity and body size.<sup>2</sup>
- The menopausal transition is an important period with respect to physical functioning. Women who were either peri- or postmenopausal have poorer physical functioning as compared to premenopausal women.<sup>1,4-6</sup> These differences are related to changes in estrogen (specifically estradiol), the hormone that declines rapidly during the menopausal transition.<sup>7</sup>
- During the menopausal transition, women tend to gain fat mass and lose lean mass.<sup>8</sup> Women with more lean mass and less fat mass have better physical functioning including faster walking speed, more leg strength, and faster stair climbing speed.<sup>9,10</sup>

### Measures of physical functioning are important markers of healthy aging.

- In SWAN, poor physical functioning was related to worse cardiovascular health and diabetes risk.<sup>11-14</sup>
- Many midlife women have chronic conditions such as knee osteoarthritis, peripheral nerve impairment and depressive symptoms.<sup>16,17</sup> These conditions are associated with worse physical functioning and more disability.<sup>16,18,19</sup>

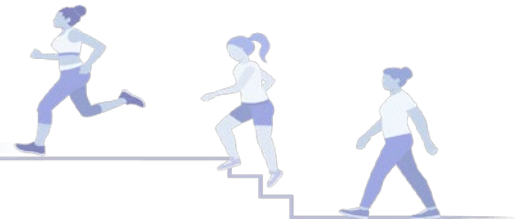
### Social determinants of health are social factors that are strongly related with health factors.

#### Investigating these factors helps us better understand reasons for group differences. SWAN has identified several social factors related to physical functioning.

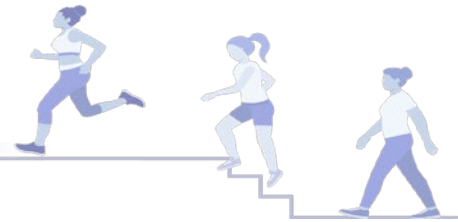
- In SWAN, there were differences in the performance of standard physical functioning tasks (i.e., stair climb, walking on a flat surface, rising from a chair) across racial and ethnic groups such that average physical functioning scores were higher for Japanese women relative to White women and were lower among Black and Hispanic women.<sup>15,20,21</sup>
- Differences in physical functioning in midlife women were partially explained by differences in socioeconomic status, body mass index, pain, and physical activity.<sup>20,21</sup>

### What may help maintain or improve physical function during midlife?

- In SWAN, not smoking, participation in regular physical activity and a healthy diet were associated with better physical function.<sup>22</sup>
- In SWAN, women who ate more fruits, vegetables, and fiber and less fat had better physical function.<sup>23</sup>
- Women who participated in high levels of physical activity, like running or walking very quickly, or in moderate levels of physical activity, like walking briskly or vacuuming had better physical functioning than women with low physical activity.<sup>24</sup>



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