Table D-1. Physical Activity-Related Health Benefits for the General Population and Selected Populations Documented by the 2018 Physical Activity Guidelines Advisory Committee

Children	
3 to <6 Years of Age	**Improved bone health and weight status**
6 to 17 years of age	**Improved cognitive function (ages 6to 13 years)** Improved cardiorespiratory and muscular fitness Improved bone health Improved cardiovascular risk factor status Improved weight status or adiposity Fewer symptoms of depression
Adults, all ages	
All-cause mortality	Lower risk
Cardiometabolic conditions	Lower cardiovascular incidence and mortality (including heart disease and stroke) Lower incidence of hypertension Lower incidence of type 2 diabetes
Cancer	Lower incidence of **bladder,** breast, colon, **endometrium, esophagus, kidney, stomach, and lung cancers**
Brain health	**Reduced risk of dementia** Improved cognitive function **Improved cognitive function following bouts of aerobic activity** **Improved quality of life** **Improved sleep** **Reduced feelings of anxiety and depression in healthy people and in people with existing clinical syndromes** Reduced incidence of depression
Weight status	**Reduced risk of excessive weight gain** Weight loss and the prevention of weight regain following initial weight loss when a sufficient dose of moderate-to-vigorous physical activity is attained An additive effect on weight loss when combined with moderate dietary restriction
Older Adults	
Falls	Reduced incidence of falls **Reduced incidence of fall-related injuries**
Physical function	**Improved physical function in older adults with and without frailty**
Women who are Pregnant or Postpartum	
During pregnancy	**Reduced risk of excessive weight gain** **Reduced risk of gestational diabetes** No risk to fetus from moderate-intensity physical activity
During postpartum	**Reduced risk of postpartum depression**

Individuals with Pre-Existing Medical Conditions	
Breast cancer	**Reduced risk of all-cause and breast cancer mortality**
Colorectal cancer	**Reduced risk of all-cause and colorectal cancer mortality**
Prostate cancer	**Reduced risk of prostate cancer mortality**
Osteoarthritis	**Decreased pain** **Improved function and quality of life**
Hypertension	**Reduced risk of progression of cardiovascular disease** **Reduced risk of increased blood pressure over time**
Type 2 diabetes	**Reduced risk of cardiovascular mortality** **Reduced progression of disease indicators: hemoglobin A1c, blood pressure, blood lipids, and body mass index**
Multiple sclerosis	**Improved walking** **Improved physical fitness**
Dementia	**Improved cognition**
Some conditions with impaired executive function (attention deficit hyperactivity disorder, schizophrenia, multiple sclerosis, Parkinson's disease, and stroke)	**Improved cognition**

Note: Benefits in **bold font** are those added in 2018; benefits in normal font are those noted in the 2008 Scientific Report.[1] Only outcomes with strong or moderate evidence of effect are included in the table.

Question 2. Does current evidence indicate that people who habitually perform greater amounts of moderate-to-vigorous physical activity feel better and sleep better?

People who are more physically active feel better and sleep better (see *Part F. Chapter 3. Brain Health*). In addition to reductions in risk for a variety of chronic health diseases and conditions, strong evidence demonstrates that more physically active people consistently report better quality of life, reduced anxiety, and reduced feelings of depression. The improved feelings have been observed in both observational cohort studies and experimental trials. Strong evidence also demonstrates that people who are more physically active sleep better. Laboratory assessments of sleep using polysomnography demonstrate that greater volumes of moderate-to-vigorous physical activity are associated with reduced sleep latency (taking less time to fall asleep), improved sleep efficiency (higher percentage of time in bed actually sleeping), improved sleep quality, and more deep sleep. Research using standardized self-reported assessments of sleep demonstrate that a greater volume of moderate-to-vigorous physical activity is associated with significantly less daytime sleepiness, better sleep quality, and a reduced frequency of use of medication to aid sleep. These improvements in sleep are reported