

2013 Physical Fitness and Motor Skills Test Overview

1 Objective

To show the current condition of Japanese citizens' physical fitness and motor skills, as well as to obtain instruction on exercise and sports and basic resources for policy making.

2 Survey Content and Demographics Targeted

(1) Survey target: 6to11 year-old elementary school children.

Test categories: 1. Grip Strength, 2. Sit-ups, 3. Sit & Reach, 4. Side Step, 5. 20 Meter Shuttle Run (Endurance Shuttles), 6. 50 Meter Run, 7. Standing Long Jump, and 8. Softball Throw

(2) Survey target: 12to19 year-old junior high school to university students.

12to14 year-old junior high; 15to17 year-old full-time high school; 15to18 year-old part-time high school; 18 and 19 year-old vocational college (males); 18 and 19 year old junior college (females); and 18 and 19 year-old university students

Test categories: 1. Grip Strength, 2. Sit-ups, 3. Sit & Reach, 4. Side Step, 5. Endurance Run, 6. 20 Meter Shuttle Run (Endurance Shuttles), 7. 50 Meter Run, 8. Standing Long Jump, and 9. Handball Throw

*Elective choice between Endurance Run and 20 Meter Shuttle Run (Endurance Shuttles)

(3) Survey target: 20to64 year-old adults

Test categories: 1. Grip Strength, 2. Sit-ups, 3. Sit & Reach, 4. Side Step, 5. Fast Walk, 6. 20 Meter Shuttle Run (Endurance Shuttles), and 7. Standing Long Jump

*Elective choice between Fast Walk and 20 Meter Shuttle Run (Endurance Shuttles)

(4) Survey target: 65to79 year-old seniors

Test categories: 1. ADL (Activities of Daily Living Test), 2. Grip Strength, 3. Sit-ups, 4. Sit & Reach, 5. Eyes Open One Leg Stand, 6. 10m Obstacle Walk, and 7. 6 Minute Walk

3 Survey Implementation Period

May to October 2013 (Elementary, junior high, and high school children: May to July)

4 Completed Survey Collection

Group	No. of Surveys	No. Collected	Collection Ratio
Elementary	13, 536	13, 033	96. 3%
Junior High	8, 460	8, 084	95. 6%
High School (Full-time)	7, 614	7, 502	98. 5%
High School (Part-time)	1, 504	1, 155	76. 8%
Vocational College (Males)	600	580	96. 7%
Junior College (Females)	600	593	98. 8%
University	2, 400	2, 202	91. 8%
Adults	33, 840	24, 994	73. 9%
Seniors	5, 640	5, 640	100. 0%
Total	74, 194	63, 783	86. 0%

(Note:) Percentages are rounded to 2 decimal points.

5 Overview of Survey Results

(1) Trends in Physical Fitness and Motor Skills with Age (Figures 1-1~8)

The three categories of: Grip Strength (muscle strength), Sit-ups (muscle strength/endurance), and Sit & Reach (flexibility) are tested for ages 6to79 years, and the three categories of Side Step (agility), 20 Meter Shuttle Run (full body endurance), and Standing Long Jump (muscle power) are tested for ages 6to64 years.

Trends accompanying aging are shown in figures 1–1 to 1–8 for: Grip Strength, Sit-ups, Sit & Reach, Side Step, 20 Meter Shuttle Run, Standing Long Jump, and well as for overall scores in the New Physical Fitness Test.

- There is variation depending on the category, but as an overall trend for both males and females the level of fitness when aging has increased. For males in their youth (6to19), their peak fitness is reached at 17 years old; for females that peak is at 14 years old. For both males and females 20 years and older, the change in fitness level that accompanies aging shows a slow, gradual declining trend. In the case of grip strength (muscle strength), males reach their peak at 30to34 years old and females at 40to44 years.

(2) Yearly Trends in Physical Fitness and Motor Skills

1. Youth (6 to 19 years old) (Figures 2–1~20)

Figures 2–1 to 2–10 show data for categories measuring basic motor fitness for which long term trends can be compared, such as grip strength and running (50 Meter Run/Endurance Run), jumping (Standing Long Jump), throwing (Softball Throw/Handball Throw), etc. In addition, figures 2–11 to 2–20 show yearly trends for Sit-ups, Sit & Reach, Side Step, 20 Meter Shuttle Run, and overall scores for the New Physical Fitness Test.

- Looking over the long term, categories involving grip strength and running, jumping, and throwing skill—with the exception of junior high school males' 50 Meter Run and Handball Throw and high school males' 50 Meter Run—are all at a lower-than-ever level compared with the period around 1985.
- Looking at basic motor fitness in the 16 year period since the implementation of the New Physical Fitness Test, the following categories involving running, jumping, and throwing show static or improved scores except in some age groups: Endurance Run, 20 Meter Shuttle Run, 50 Meter Run, Standing Long Jump, and Softball/Handball Throw.
- Looking at yearly trends in overall scores in the 16 year period since the implementation of the New Physical Fitness Test, one can see slow, mild improvement in most age groups.

2. Adults (20to64 years) (Figures 3–1~9)

For adults, figures 3–1 to 3–4 show data for categories for which long term trends can be compared, such as Grip Strength, Side Step, and Fast Walk. Additionally, figures 3–5 to 3–9 show yearly trends for Sit-ups, Sit & Reach, 20 Meter Shuttle Run, Standing Long Jump, and overall scores for the New Physical Fitness Test.

- Looking over the long term, no particular trend can be identified in Grip Strength and Fast Walk, but in Side Step there has been an improvement.
- In the 16 year period since the implementation of the New Physical Fitness Test, scores for males

in 20 Meter Shuttle Run have trended upward, but no particular trend can be identified for females. There has been almost no change in Fast Walk scores for any age group. There has been a slow, gradual trend in improvement in Side Step except for females in their 30s. Most age groups show improvement in Sit-ups, but there is a declining trend in Sit & Reach. There is a downward trend in scores in Grip Strength and Standing Long jump in the 20to40 year-old age bracket, but an upward trend for those 50to60 years old.

- Looking at overall scores in the 16 year period since the implementation of the New Physical Fitness Test, there is a downward trend for both males and females in their 30s, but there is a slow, gradual upward trend for both males and females 50 years or older.