Fitness During COVID-19 Pandemic: What Now?

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Recap: Special Olympics Fitness

Optimal health and performance through adequate physical activity, nutrition and hydration.
Achieving Fitness: PA and Dietary Guidelines for Children and Youth

How much activity do I need?

If you're between age 6 and 17, you need at least **60 minutes** of activity each and every day.

So, what kind of activity do I need?

Get a mix of activity. Do things that:

- Strengthen your bones
- Build your muscles
- Make your heart beat faster
Achieving Fitness: PA and Dietary Guidelines for Adults

How much physical activity should you do?

All adults should undertake muscle strengthening activity, such as:
- exercising with weights
- yoga
- or carrying heavy shopping

Adults (19 to 64) should aim for at least 150 minutes of moderate intensity activity, in bouts of 10 minutes or more, each week

Minimise the amount of time spent sedentary (sitting) for extended periods

At least 2 days a week

This can also be achieved by 75 minutes of vigorous activity across the week or a mixture of moderate and vigorous.

The American Heart Association Recommendations for Physical Activity in Adults

At least 30 minutes of moderate-intensity aerobic activity

At least 5 per week for a total of 150 minutes

OR

At least 25 minutes of vigorous aerobic activity

At least 3 per week for a total of 75 minutes

OR

A combination of the two

AND

Muscle-strengthening activity

At least 2 per week for additional health benefits
Fitness Models and Resources
Impact of SO Fitness Programming

• **Fitness in Schools:**
  - 433 students - 48% with ID
  - Grip Strength
    - Increased in all age groups.
    - 8-10 yo scores almost doubled.
  - 6-minute Walk Test
    - Increased from 465m to 506m.
    - 80m improvement in 14-16 yo.

• **Fitness in Community:**
  - 35% reported eating 1+ serving of fruits and veggies/day.
  - 32% reported increased PA by at least 1 day/week.
  - BP decreased; particularly among those with highest readings.
An Unexpected and Unprecedented Challenge
Collateral Effects of Quarantine: Reduced Opportunities for PA

- No school-based PE, recess, or athletic programs.
- Recreational spaces/facilities closed (trails, playgrounds, pools).
- Fitness centers closed.
- Cardiac rehab. programs suspended.
- Increased screen time = greater sedentary behavior.
- Food insecurity.
- Stock up on shelf-stable foods.

Bar chart: Kids Getting Less Physical Activity and More Screen Time Due to the Pandemic
- More than before: 15%
- Same as before: 25%
- Less than before: 60%

Bar chart: Screen time (non-academic)
- More than before: 78%
- Same as before: 19%
- Less than before: 3%
Multiple Pandemics and Epidemics Collide

Globally, around 31% of adults aged 15+ were insufficiently active in 2008 (men 28%, women 34%). Approximately 3.2 million deaths each year are attributable to insufficient physical activity.
Is COVID-19 making the world move even less than before?

Will these increased sedentary behaviors persist and become the new societal norms?

https://doi.org/10.1016/j.pcad.2020.04.005
New Commentary on COVID and PA

• Effects of home Confinement on Lifestyle Behaviours during the COVID-19 outbreak (ECLB-COVID19) - International survey.
  • Minutes/day of PA decreased 33.5%.
  • Hours/day of sitting increased 28.6%.
  • Eating out of control “most of the time” increased to 20.4% from 9.7%.

• Survey of 1491 Australian adults.
  • Negative changes in PA (48.9%), sleep (40.7%), alcohol intake (26.6%) and smoking (6.9%).
  • Higher scores in 1+ psychological distress states for females, those aged 18-45 years, or with a chronic illness.

doi: 10.3390/nu12061583
https://dx-doi-org.ezproxy.lib.umb.edu/10.3390%2Fijerph17114065
• Kids are less active when out of school.
• Survey of 2426 youth in China.
  • PA decreased 435 min/week - 7 hours!
  • Screen time increased 1730 min/week - 30 hours!
• Survey of 3075 Portuguese families.
  • Being younger, having an outdoor space, other kids in household, and one parent free from work = more active.
...the evidence linking a significantly higher risk for chronic disease if you are physically inactive and lead a sedentary lifestyle is beyond dispute. If the prevalence of chronic conditions brought about by unhealthy lifestyles were lower, would the catastrophic effects of the COVID-19 pandemic be lessened?

"at an absolute minimum, we have to hold the line"
The Psychological Effect of Quarantine

- Quarantine can induce:
  - Stress and anxiety
  - Depression
  - Irritability
  - Insomnia
  - Emotional disturbance
  - Confusion and anger
  - Boredom

doi: 10.1016/j.numecd.2020.05.020

doi.org/10.1016/S0140-6736(20)30460-8
Physical Activity: A Simple Strategy to Mitigate Effects of Isolation

• Increase emotional resilience.
• Reduce stress and anxiety; reduce worry and fear.
• Promote sleep.
• Reduce depressive symptoms.
• Limit weight gain.
• Improve immune system and reduce risk for disease.

https://doi.org/10.1016/j.pcad.2020.03.009
WHO Guidance on Staying Physically Active

• Take short active breaks throughout the day.
• Follow an online exercise class.
• Walk.
• Stand up.
• Relax.
• Eat healthily and stay hydrated.
Now What?

- Ramp up!
- Use all available resources.
- Novel, innovative, accessible approaches to fitness.
  - People with ID may experience disparities in access to opportunities.
- Coordinated and multidisciplinary team.
Role of Fitness

- Without sport, PE, group activities, fitness programming takes center stage.
  - Small space, minimal equipment, low organization, low skill.
- Catalyst to inclusion.
  - Creating connections through fitness.