Surviving and thriving in a pandemic: activity and nutrition tips

Stuart M. Phillips, Ph.D., FCAHS, FACN, FACSM
Professor and Tier 1 Canada Research Chair, McMaster University

@mackinprof
https://www.facebook.com/SMPPh.D/
@mackinprof

Understanding stress

Stress is a biological signal response system that allows us to cope with the demands of day to day life

Too much = chronic stress

Too high a dose = acute stress and anxiety (panic)

Is stress the problem? Or is it finding balance for our stress?
What can really help WRT COVID-19?

1. Physical distance
2. Wash your hands
3. Don’t touch your face
4. Avoid sick people (if possible)
5. Wear a mask
6. Resilience
7. Sleep
8. Exercise
9. Diet (and fluid)
10. Supplements

https://examine.com/guides/coronavirus/
re·sil·i·ence /rəˈzɪliəns/
noun
“the capacity to recover quickly from difficulties; toughness.”

Developing resilience

1. Process your negative emotions
2. Recognize the availability of social support
3. Be proactive in your personal development
4. Consider the decisions you make as active choices rather than sacrifices
5. Fostering resilience in others: challenge and support
6. What can you control, what can you not control?
7. When you cannot control take responsibility for your reactions
   – Adversity, Belief, Consequence
8. Regulate your thoughts by telling someone else what you’re thinking
**Mental Fitness**

1. Make a ROUTINE
2. Stay CONNECTED
3. Read a BOOK
4. LIMIT news
5. Take a class – learn something new
6. CLEAN your home
7. Keep a JOURNAL
8. RELAX
9. EXERCISE

---

**What can really help WRT COVID-19?**

1. Physical distance
2. Wash your hands
3. Don’t touch your face
4. Avoid sick people (if possible)
5. Wear a mask
6. Resilience
7. Sleep
8. Exercise
9. Diet (and fluid)
10. Supplements

https://examine.com/guides/coronavirus/
**Foundational pyramid during COVID-19**

1. **Consistent bed & wake times**
2. Open your windows and get some sunlight
3. Be and stay PHYSICALLY ACTIVE
4. Short nap (30min) in early afternoon, only if needed
5. Social connectivity
6. Avoid alcohol and binge meals close to bed
7. Identify how much caffeine you can tolerate
8. Try to avoid screens – phones, computers, video games
9. Avoid lying in bed for long periods of time, ideally go to bed only when you are tired, spend time outside in the sun and do something stimulating before going to sleep
10. It is normal not to sleep perfectly every night
11. Sleep is best when your room temp is 17-20°C (63-68°F)
The five main ‘enemies’ of sleep

What can HURT

- Light
- Noise
- Heat
- Alcohol
- Caffeine

What can really help WRT COVID-19?

1. Physical distance
2. Wash your hands
3. Don’t touch your face
4. Avoid sick people (if possible)
5. Wear a mask
6. Resilience
7. Sleep
8. Exercise
9. Diet (and fluid)
10. Supplements
Physical activity versus exercise


Alternatives to sitting

- Exercise ball
- Standing
- Leaning stool
- Kneeling chair
Physical Activity

1. Break up your sitting time
2. Try and be active throughout the day
3. Try to get outside
4. ANY active break matters, but intensity does too – climb stairs!
   - Stand don’t sit
   - Walk don’t stand
   - Run don’t walk...
5. Try not to keep your phone nearby
6. Break up exercise into exercise ‘snacks’
7. ‘Active’ recovery: sit don’t lie, stand don’t sit...

What exercise?

- Run, Walk, Bike, Jog, Swim, Dance, Zumba, Aerobics, Skip, Tennis, Soccer, Hockey, Golf...
- Gym, Bodyweight, X-fit, circuit, calisthenics, Yoga, Pilates...
- Find something you enjoy and will do repeatedly

The ‘prescription’

- Aerobic 150min – 5 x 30min
- Resistance twice weekly
- Stretching
- Balance
What can really help WRT COVID-19?

1. Physical distance
2. Wash your hands
3. Don’t touch your face
4. Avoid sick people (if possible)
5. Wear a mask
6. Resilience
7. Sleep
8. Exercise
9. Diet (and fluid)
10. Supplements

Is there an ideal diet?

• Despite 1000+ diets and dietary nuances my take is that you should try and eat real (whole) foods as much as possible
• The best diet is the one you can stick to
What can really help WRT COVID-19?

1. Physical distance
2. Wash your hands
3. Don’t touch your face
4. Avoid sick people (if possible)
5. Wear a mask
6. Resilience
7. Sleep
8. Exercise
9. Diet (and fluid)
10. Supplements

https://examine.com/guides/coronavirus/
Supplements

- Vit C
- Vit D
- Zinc

### Recommended Dietary Allowance (RDA) of vitamin C (*mg*)

<table>
<thead>
<tr>
<th>AGE</th>
<th>MALE</th>
<th>FEMALE</th>
<th>PREGNANT</th>
<th>LACTATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-6 months</td>
<td>40**</td>
<td>40**</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>7-12 months</td>
<td>50**</td>
<td>50**</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>1-3 years</td>
<td>15</td>
<td>15</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>4-8 years</td>
<td>25</td>
<td>25</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>9-13 years</td>
<td>45</td>
<td>45</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>14-18 years</td>
<td>75</td>
<td>75</td>
<td>80</td>
<td>115</td>
</tr>
<tr>
<td>&gt;18 years</td>
<td>90</td>
<td>75</td>
<td>85</td>
<td>120</td>
</tr>
</tbody>
</table>

* 40 IU = 1 mcg | ** Adequate Intake (AI)

### Recommended Dietary Allowance (RDAs) for vitamin D (IU*)

<table>
<thead>
<tr>
<th>AGE</th>
<th>MALE</th>
<th>FEMALE</th>
<th>PREGNANT</th>
<th>LACTATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-12 months</td>
<td>400**</td>
<td>400**</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>1-13 months</td>
<td>600</td>
<td>600</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>14-18 years</td>
<td>600</td>
<td>600</td>
<td>600</td>
<td>600</td>
</tr>
<tr>
<td>19-50 years</td>
<td>600</td>
<td>600</td>
<td>600</td>
<td>600</td>
</tr>
<tr>
<td>51-70 years</td>
<td>600</td>
<td>600</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>&gt;70 years</td>
<td>800</td>
<td>800</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>
Supplements

- Vit C
- Vit D
- Zinc

Recommended Dietary Allowance (RDA) for zinc (mg)

<table>
<thead>
<tr>
<th>AGE</th>
<th>MALE</th>
<th>FEMALE</th>
<th>PREGNANT</th>
<th>LACTATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–6 months</td>
<td>2</td>
<td>2</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>7–12 months</td>
<td>3</td>
<td>3</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>1–3 years</td>
<td>3</td>
<td>3</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>4–8 years</td>
<td>5</td>
<td>5</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>9–13 years</td>
<td>8</td>
<td>8</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>14–18 years</td>
<td>11</td>
<td>9</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>&gt;18 years</td>
<td>11</td>
<td>8</td>
<td>11</td>
<td>12</td>
</tr>
</tbody>
</table>

Take home points

- Practice all relevant COVID protection measures
  1. Physical distance
  2. Wash your hands
  3. Don’t touch your face
  4. Avoid sick people (if possible)
  5. Wear a mask
- Resilience
- Sleep
- Exercise
- Diet
- Supplements: D, C, Zinc
- [https://examine.com/guides/coronavirus/](https://examine.com/guides/coronavirus/)

Thank you