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## Nutrition, Health, & Well-Being

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# You Are What You Eat: Diet, Health, and Well-being

DFEND 2.0

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# Objectives

1. Define well-being
2. Understand the impact of social distancing on well-being
3. Understand how well-being is measured
4. Understand how nutrition is linked to well-being
5. Identify nutrients and foods that are linked to well-being

# Definition of Well-being

- The presence of positive emotions and moods (e.g., contentment, happiness)
- The absence of negative emotions (e.g., depression, anxiety)
- Satisfaction with life
- Fulfillment and positive functioning

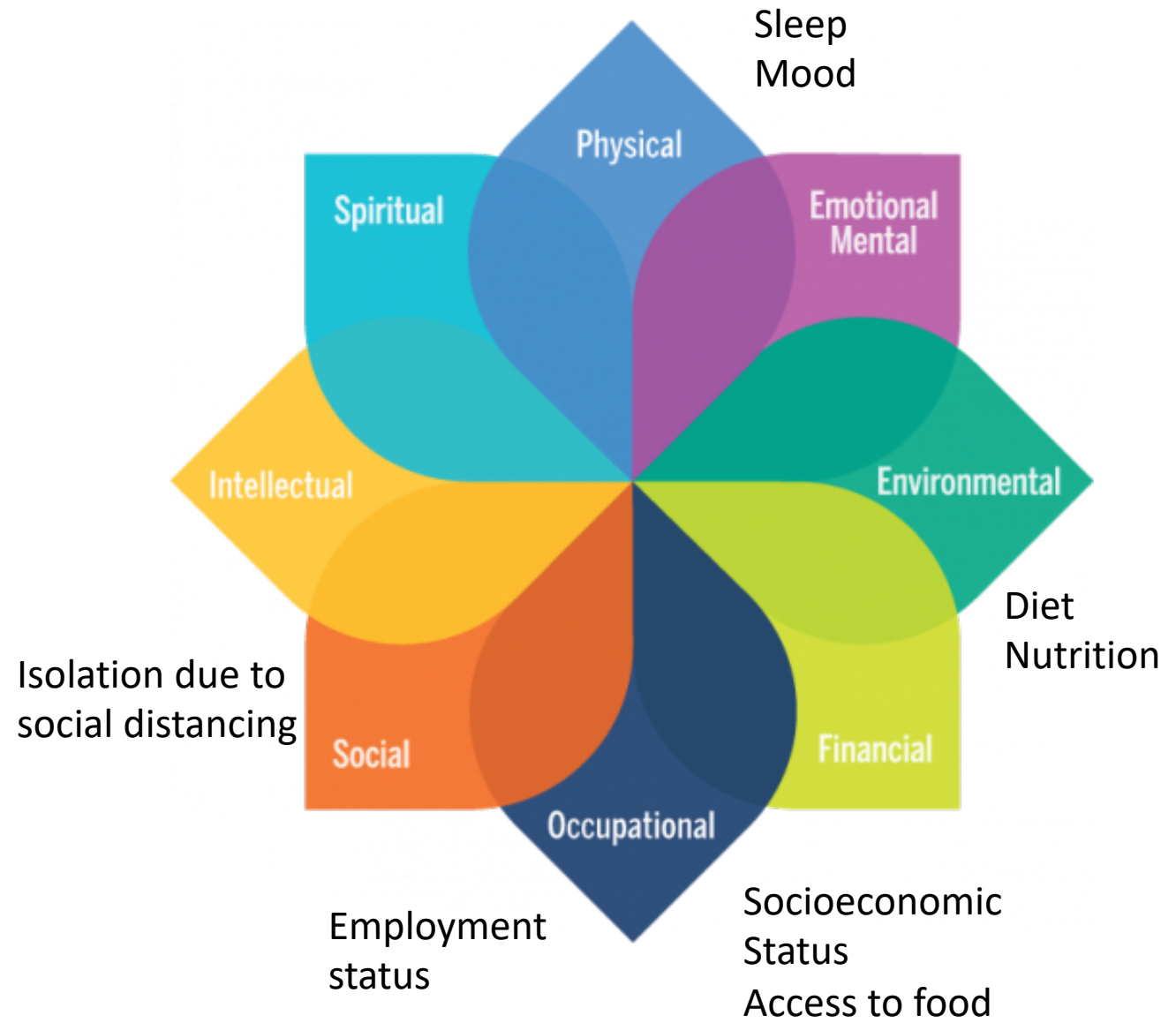
Source: <https://www.cdc.gov/hrqol/wellbeing.htm>



Image: <https://studentlife.umich.edu/article/what's-new-your-health-and-well-being>

# Well-being includes:

- Physical well-being.
- Economic well-being.
- Social well-being.
- Development and activity.
- Emotional well-being.
- Psychological well-being.
- Life satisfaction.
- Domain specific satisfaction.
- Engaging activities and work.



# Why Do We Care About Well-being?

- Integrates mental health (mind) and physical health (body) resulting in more holistic approaches to disease prevention and health promotion.
- Positive outcome that is meaningful for people and for many sectors of society, because it tells us that people perceive that their lives are going well.
- Measuring, tracking and promoting well-being can be useful for multiple stakeholders involved in disease prevention and health promotion.

Source: <https://www.cdc.gov/hrqol/wellbeing.htm>

# Why Do We Care About Well-being?

- Well-being is associated with numerous health-, job-, family-, and economically-related benefits.
- Higher levels of well-being are associated with decreased risk of disease, illness, and injury; better immune functioning; speedier recovery; and increased longevity.
- Individuals with high levels of well-being are more productive at work and are more likely to contribute to their communities

Source: <https://www.cdc.gov/hrqol/wellbeing.htm>

# How Does Well-being Relate to Health Promotion?

Source: <https://www.cdc.gov/hrqol/wellbeing.htm>

- Health promotion is the process of enabling people to increase control over, and to improve their health.
- Health promotion activities aimed at strengthening such individual, environmental and social resources may ultimately improve well-being.
  - Health is more than the absence of disease; it is a resource that allows people to realize their aspirations, satisfy their needs and to cope with the environment in order to live a long, productive, and fruitful life.
  - Health enables social, economic and personal development fundamental to well-being.
  - Environmental and social resources for health can include: peace, economic security, a stable ecosystem, and safe housing.
  - Individual resources for health can include: physical activity, healthful diet, social ties, resiliency, positive emotions, and autonomy.



# Measuring Well-being

- Because well-being is subjective, it is typically measured with self-reports.
  - Surveys
  - Questionnaires

Source: [https://www.pdfFiller.com/307068384-EnglishQWB-SA\\_4pdf-Quality-of-Well-Being-Scale-Self-Administered-QWB-SA-V1-hoap-ucsd-](https://www.pdfFiller.com/307068384-EnglishQWB-SA_4pdf-Quality-of-Well-Being-Scale-Self-Administered-QWB-SA-V1-hoap-ucsd-)

Clinic:  Participant ID:  Nickname:  Outcomes Visit:  Month:  Day:  Year:

### Quality of Well-Being Scale, Self-Administered (QWB-SA), V1.04

This survey asks about health problems that you have experienced in the last 3 days, not including today. Please answer all questions by filling in the appropriate circle completely with blue or black ink. Please do not use check marks or felt tip pens. Thank you.

**1. Please indicate whether you currently experience each of the following health symptoms or problems:**

| Do you have...  | YES                   | NO                    |
|---|-----------------------|-----------------------|
| a. blindness or severely impaired vision in both eyes?  | <input type="radio"/> | <input type="radio"/> |
| b. blindness or severely impaired vision in only one eye?   | <input type="radio"/> | <input type="radio"/> |
| c. speech problems such as stuttering, or being unable to speak clearly?                                | <input type="radio"/> | <input type="radio"/> |
| d. missing or paralyzed hands, feet, arms, or legs?   | <input type="radio"/> | <input type="radio"/> |
| e. missing or paralyzed fingers or toes?  | <input type="radio"/> | <input type="radio"/> |
| f. any deformity of the face, fingers, hand or arm, foot or leg, or back (e.g. severe scoliosis)?       | <input type="radio"/> | <input type="radio"/> |
| g. general fatigue, tiredness, or weakness?   | <input type="radio"/> | <input type="radio"/> |
| h. a problem with unwanted weight gain or weight loss?  | <input type="radio"/> | <input type="radio"/> |
| i. a problem with being under or over weight?   | <input type="radio"/> | <input type="radio"/> |
| j. problems chewing your food adequately?   | <input type="radio"/> | <input type="radio"/> |
| k. any hearing loss or deafness?  | <input type="radio"/> | <input type="radio"/> |
| l. any noticeable skin problems, such as bad acne or large burns or scars on face, body, arms, or legs? | <input type="radio"/> | <input type="radio"/> |
| m. eczema or burning/itching rash?  | <input type="radio"/> | <input type="radio"/> |

**Which of the following health aides do you use/have?**

|                                   | YES                   | NO                    |
|-----------------------------------|-----------------------|-----------------------|
| a. dentures?                      | <input type="radio"/> | <input type="radio"/> |
| b. oxygen tank?                   | <input type="radio"/> | <input type="radio"/> |
| c. prosthesis?                    | <input type="radio"/> | <input type="radio"/> |
| d. eye glasses or contact lenses? | <input type="radio"/> | <input type="radio"/> |
| e. hearing aide?                  | <input type="radio"/> | <input type="radio"/> |
| f. magnifying glass?              | <input type="radio"/> | <input type="radio"/> |
| g. neck, back, or leg brace?      | <input type="radio"/> | <input type="radio"/> |

**2. For the following list of problems, indicate which days (if any) over the past 3 days, not including today, you had the problem. If you have not had the symptom in the past 3 days, do not leave the question blank, please fill in "no days." If you have experienced the symptom in the past 3 days, please fill in which of the days you had it; if you experienced it on more than one of the days, please fill in all days that apply.**

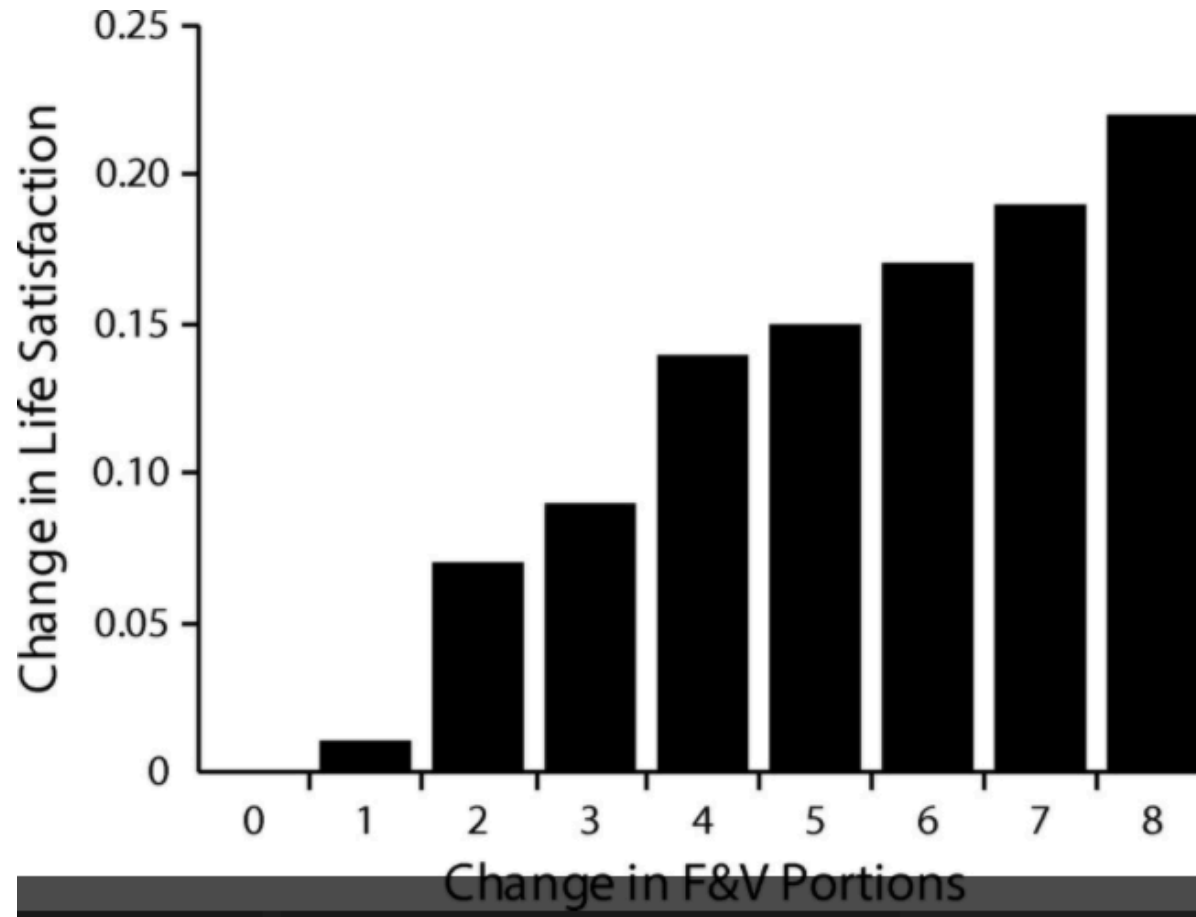
|  | No days               | Yester-day                       | 2 days ago                       | 3 days ago            |
|--|-----------------------|----------------------------------|----------------------------------|-----------------------|
| For example, if you had a headache yesterday and the day before that, you would mark for a headache:<br>Did you have... (please fill in all days that apply) | <input type="radio"/> | <input checked="" type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> |
| a. any problems with your vision not corrected with glasses or contact lenses (such as double vision, distorted vision, flashes, or floaters)?               | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/> |
| b. any eye pain, irritation, discharge, or excessive sensitivity to light?   | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/> |

Quality Well-Being • Page 1 of 4 • Revised 08/15/04  
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Eating well (i.e. a well-balanced diet rich in vegetables and nutrients) may be associated with feelings of wellbeing.

- One 2014 study found high levels of wellbeing were reported by individuals who ate more fruit and vegetables.
  - <https://bmjopen.bmj.com/content/bmjopen/4/9/e005878.full.pdf>
- Eating a selection of foods that meet your daily nutritional needs can help you improve your overall health and lead a healthy lifestyle. It can also help people with depression, anxiety, and other related disorders.
  - <https://resources.beyondblue.org.au/prism/file?token=BL/1178>
- Your gut microbiome may send signals to your brain that can affect mood, thinking skills, and memory.
  - <https://www.hopkinsmedicine.org/health/wellness-and-prevention/the-brain-gut-connection>
  - <https://www.health.harvard.edu/blog/nutritional-psychiatry-your-brain-on-food-201511168626>

# Evolution of Well-Being and Happiness After Increases in Consumption of Fruit and Vegetables



Redzo Mujcic and Andrew J.Oswald, 2016:[Evolution of Well-Being and Happiness After Increases in Consumption of Fruit and Vegetables](#)

American Journal of Public Health **106**, 1504\_1510, <https://doi.org/10.2105/AJPH.2016.303260>

# 7 Tips to Manage Mood with Food

1. Eat regularly
2. Stay hydrated
3. Look after your gut
4. Manage caffeine
5. Eat 5 servings of fruit and vegetables per day
6. Get enough protein
7. Eat the right fats



<https://www.mind.org.uk/information-support/tips-for-everyday-living/food-and-mood/about-food-and-mood/>

# Well-being During COVID-19

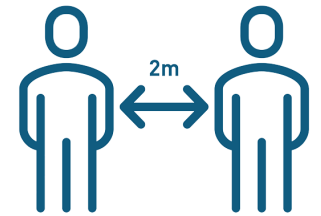
# Stress During the COVID-19 Pandemic Can Lead to:

- Fear and worry about your own health and the health of your loved ones, your financial situation or job, or loss of support services you rely on.
- Changes in sleep or eating patterns.
- Difficulty sleeping or concentrating.
- Worsening of chronic health problems.
- Worsening of mental health conditions.
- Increased use of tobacco, and/or alcohol and other substances.

Source: <https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/managing-stress-anxiety.html>

# Social Distancing Recommendations

- Physical distancing (6 feet/2 meters/2 arm lengths) by keeping a safe space between yourself and other people not from your household in both indoor and outdoor spaces.
- Limit contact when running errands.
- Avoid crowds and keep distance at events and social gatherings.
- Stay distanced while being active.
- Wear cloth face coverings



Source: <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/social-distancing.html>

# Impact of Social Distancing Recommendations on Health and Well-being

- Social isolation can increase the risk of heart disease, depression, dementia, and even death.
- A 2015 meta-analysis determined that chronic social isolation increases the risk of mortality by 29%.
- Weight gain due to unhealthy eating and physical inactivity.

## References

- S.K. Brooks *et al.* [The psychological impact of quarantine and how to reduce it: rapid review of the evidence](#). *The Lancet*. Vol. 395, March 14, 2020, p. 912. doi: 10.1016/S0140-6736(20)30460-8.
- National Academies of Sciences, Engineering and Medicine. [Social isolation and loneliness in older adults: opportunities for the healthcare system](#). Published online February 2020. doi: 10.17226/25663.
- J. Holt-Lunstad *et al.* [Loneliness and social isolation as risk factors for mortality: a meta-analytic review](#). *Perspectives on Psychological Science*. Vol. 10, March 2015, p. 227. doi: 10.1177/1745691614568352.



# Nutritional Recommendations During COVID-19

- Maintain a healthy lifestyle

- Get enough sleep
- Eat well
- Exercise in your home when you are physically capable of doing so
- Try to avoid using alcohol or drugs as a way to cope with the stresses of isolation and quarantine
- If needed, consider telehealth options for psychotherapy.

Source: American Psychological Association -  
<https://www.apa.org/practice/programs/dmhi/research-information/social-distancing>



# Nutritional Recommendations During COVID-19

- Proper nutrition and hydration are vital.
- People who eat a well-balanced diet tend to be healthier with stronger immune systems and lower risk of chronic illnesses and infectious diseases.
- So you should eat a variety of fresh and unprocessed foods every day to get the vitamins, minerals, dietary fiber, protein and antioxidants your body needs.

Source: World Health Organization-  
<http://www.emro.who.int/nutrition/nutrition-infocus/nutrition-advice-for-adults-during-the-covid-19-outbreak.html>

★ Drink enough water.

- Avoid sugar, fat and salt to significantly lower your risk of overweight, obesity, heart disease, stroke, diabetes and certain types of cancer.

# Impact of COVID-19 on Food Intake for Improved Well-being

Source: European Journal of Clinical Nutrition (2020) 74:850-851

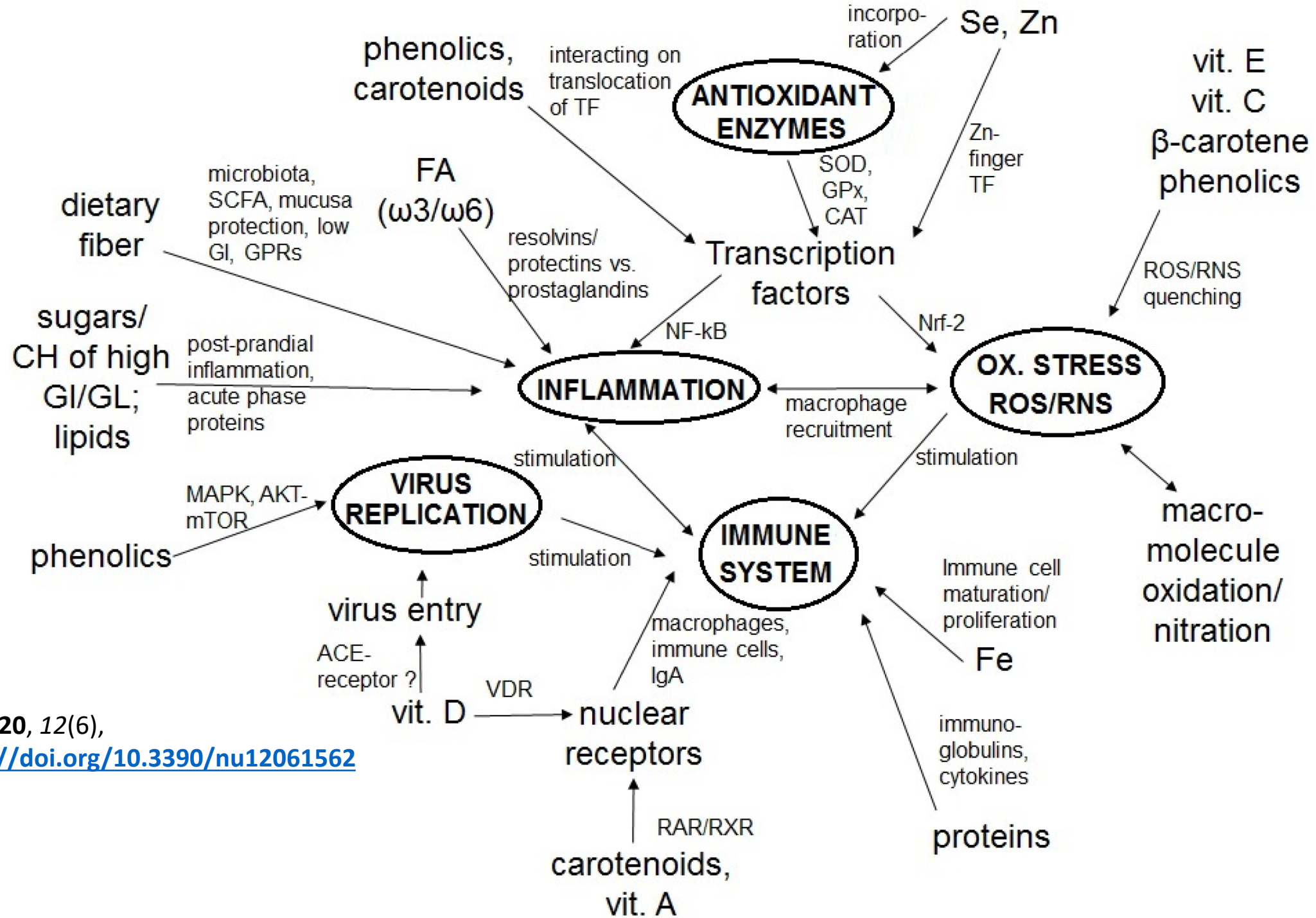
- **Cravings of comfort foods may increase due to stress and boredom**
  - Food cravings: Desire to consume a specific kind of food
    - Emotional: intense desire to eat
    - Behavioral: actively seeking food
    - Cognitive: constant thoughts about food
    - Physiological processes
  - Women tend to have a higher prevalence for food cravings than men
- **Carbohydrate cravings**
  - Encourage serotonin production which has a positive effect on mood, however avoid simple carbohydrates which can lead to weight gain.

# Impact of COVID-19 on Food Intake for Improved Well-being

Source: European Journal of Clinical Nutrition (2020) 74:850-851

- **Sleep disturbances can increase stress and food intake**
  - Consume food containing or promoting the synthesis of serotonin and melatonin at dinner.
    - Roots, leaves, fruits, seeds
    - Protein foods (milk, milk products)
- **Consume foods that boost immune function**
  - Fruits and vegetables with micronutrients (vitamins and minerals) and antioxidants that boost immunity.
  - Antioxidants increase the number of T-cell subsets
    - Beta Carotene: sweet potatoes, carrots, green leafy vegetables
    - Vitamin C: red peppers, oranges, strawberries, broccoli, mangoes, lemons
    - Vitamin E: vegetable oils, nuts seeds, spinach, broccoli
    - Vitamin D: sun exposure, fish, liver, eggs, foods with added vitamin D
    - Zinc: poultry, red meat, nuts, seeds, beans, lentils

} tryptophan → serotonin



# Buy Foods that will Stay Fresh 1 Week or Longer to Minimize Visits to the Supermarket

- **Breads**
- **Grains**
- **Fruits**—sturdy fresh fruit (apples, citrus), dried, plain frozen, canned in juice or water
- **Vegetables**—sturdy fresh veggies (celery, broccoli, onions, potatoes), plain frozen, low sodium canned, sun-dried
- **Sauces**—tomato pasta sauce, salsa
- **Soups & Broths**—canned, frozen, shelf-stable cartons
- **100% Juice**—refrigerated, frozen, canned, boxed
- **Milk**—fresh, canned, shelf-stable packages
- **Eggs**—fresh eggs, egg whites in cartons
- **Cheese**—sliced, cubed, shredded, crumbled, grated hard cheese
- **Beans/Legumes**—canned beans (black beans, chickpeas), dry beans
- **Nuts and seeds**—bagged, canned, nut butters
- **Chicken**—frozen or canned
- **Seafood**—frozen ready-to-cook fish fillets, frozen shrimp, canned tuna, salmon, and sardines
- **Beef**—pre-made frozen lean ground patties or meatballs
- **Flavorings**—add flavor with dried herbs & spices, vinegars, mustard, hot/steak sauces, lemon/lime juice, light dressings, honey, Greek yogurt

Source: American Society for Nutrition –  
<https://nutrition.org/making-health-and-nutrition-a-priority-during-the-coronavirus-covid-19-pandemic/>

# Take Home Messages

Eating a selection of foods that meet your daily nutritional needs can help you improve your overall health and well-being.

This includes:

1. Eat regularly
2. Stay hydrated
3. Look after your gut
4. Manage caffeine
5. Eat 5 servings of fruit and vegetables per day
6. Get enough protein
7. Eat the right fats
8. And don't forget... physical activity!



Image: <https://studentlife.umich.edu/article/what's-new-your-health-and-well-being>

Questions