Re-building Healthy Habits

Maintaining Cardiovascular Health During the COVID-19 Pandemic
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Outline

1. Pre-pandemic Cardiovascular Health in the US
2. Pandemic-Related
   a. Increase in CV risk Factors
   b. Decrease in Preventative and Emergency CV Care
3. COVID-19 Disease Prevention and Heart Health
4. 2022: Rebuilding Healthy Habits
Pre-Pandemic Cardiovascular Health

39% of people surveyed thought they were in ideal CV health.

Only 1% were ideal by all 7 metrics.

3-4 “ideal measures” decrease your risk of heart-related death by more than half.
Pre-Pandemic Dietary Choices

Currently:
- 75% of people have dietary patterns low in vegetables, fruits, and dairy.
- 63% exceed the limit for added sugars.
- 77% exceed the limit for saturated fat.
- 90% exceed the Chronic Disease Risk Reduction limits for sodium.

More than half of the U.S. population meets or exceeds total grain and protein foods recommendations, but are not meeting the subgroup recommendations for each food group.
74% of US Adults are Overweight or Obese Pre-Pandemic

2011

2020

CDC Report
One year on: Unhealthy weight gains, increased drinking reported by Americans coping with pandemic stress

PUBLIC HEALTH

Obesity Rates Rise During Pandemic, Fueled By Stress, Job Loss, Sedentary Lifestyle

The Pandemic Has Your Blood Pressure Rising? You’re Not Alone.

Average blood pressure readings increased as the coronavirus spread, new research suggests. The finding portends medical repercussions far beyond Covid-19.
Early-Pandemic Associated Decreased Step Counts

Average Daily Step Count by City from January to June 2020

Tison, et al. Annals of Internal Medicine, Nov 2020
Early-Pandemic Associated Decreased Step Counts

Average Daily Activity in Minutes by City in 2019 vs. 2020

Lu, et al, JACC, 2022
53% have been less physically active than they wanted.
Physical Activity is an Important Predictor of Survival

Decrease likelihood of death at 1 year by 50%

Increased Demand for Food Delivery & Comfort Food

Analysts: Comfort Food Popularity Should Continue Post-Pandemic

Americans Are Eating Like Kids Again

The COVID-19 delivery boom
The four top U.S. food-delivery apps saw revenue rise $3 billion collectively in the second and third quarters, as the coronavirus pandemic required shelter-in-place restrictions.

Source: SEC filings
Top 10 Food Delivery Choices:

Cheese fry sales increased by over 1200%
Early Pandemic-Associated Weight Gain Among Adults

Figure. Mean Weight Change After Shelter-in-Place for the Study Population

> ½ lb every 10 days

**Figure.** post-SIP participants experienced steady weight gain at a rate of 0.27 kg every 10 days (95% CI, 0.17 to 0.38 kg per 10 days; \( P < .001 \)), irrespective of geographic location or comorbidities.

Lin, JAMA Network Open. 2021
Pandemic-Related Weight Change Overall

Slightly More Than 6 in 10 U.S. Adults (61%) Report Undesired Weight Change Since Start of Pandemic

**PANDEMIC SURVEY**

% WHO REPORT UNDESIRED WEIGHT LOSS | AVERAGE WEIGHT LOSS | % WHO REPORT UNDESIRED WEIGHT GAIN
--- | --- | ---
18% | 26 lbs | 42%
20% | 25 lbs | 39%
17% | 27 lbs | 45%
22% | 22 lbs | 52%
22% | 26 lbs | 48%
17% | 24 lbs | 41%
14% | 26 lbs | 37%
5% | 22 lbs |
17% | 22 lbs |
25% | 27 lbs |
22% | 38 lbs |
16% | 29 lbs |
22% | 30 lbs |

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*American Psychological Association © 2021*
Cigarette Smoking & COVID-19

“During the pandemic, smokers might have increased their smoking due to stress and boredom. On the other hand, the fear of catching COVID might have led them to cut down or quit smoking. In fact, we found that both happened.”

Nancy A. Rigotti, MD
Director, Tobacco Research and Treatment Center, Massachusetts General Hospital

Rigotti et al, JGIM 2021
Alcohol Consumption

Average drinking days ↑20%  Drinks per drinking day ↑10%  Binge Drinking ↑20%

PANDEMIC SURVEY

Americans’ Physical Health Has Taken a Back Seat Since Start of Pandemic

47% delayed or canceled health care services.

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Dartmouth-Hitchcock Health
The present and future
JACC State-of-the-Art Review

Cardiovascular Considerations for Patients, Health Care Workers, and Health Systems During the COVID-19 Pandemic

Elissa Driggin, MD,⁎⁎ Mahesh V. Madhavan, MD,⁎⁎ Behnoood Bikdeli, MD, MS,⁎⁎ Taylor Chuich, PhD,⁎⁎ Justin Laracy, MD,⁎ Giuseppe Biondi-Zoccai, MD, MStat,⁎⁎⁎ Tyler S. Brown, MD,⁎ Caroline Der Nagoghossian, PhD,⁎⁎⁎ David A. Zidar, MD, PhD,⁎ Jennifer Haythe, MD,⁎ Daniel Brodie, MD,⁎ Joshua A. Beckman, MD,⁎ Ajay J. Kirtane, MD, SM,⁎⁎ Gregg W. Stone, MD,⁎⁎ Harlan M. Krumholz, MD SM,⁎⁎ Sahil A. Parikh, MD,⁎

Epub March 19, 2020
COVID Decreases Volume of Elective Procedures

Yong et al. American Heart Journal 2021
Reduced Access to Needed Services

Percentage unable to receive one or more types of care in the last two months due to the pandemic

4 in 10 U.S. adults reported avoiding medical care because of concerns related to COVID-19.

Delaying or avoiding urgent or emergency care was more common among:

- People with disabilities
- People with two or more underlying conditions

Telehealth may help people get the care they need.

Even during the COVID-19 pandemic, people who experience a medical emergency should seek care without delay.

CDC.GOV  bit.ly/MMWR91020
Where Have All the Heart Attacks Gone?

informal Twitter poll by @angioplastyorg, an online community of cardiologists, almost half of the respondents reported that they are seeing a 40 percent to 60 percent reduction in admissions for heart attacks; about 20 percent reported more than a 60 percent reduction.

Krumholtz, NY Times, April 6, 2020
COVID Increases Late Presentations for STEMI
Delays Increase Risk of Death from Heart Attack
Excess Deaths

Weekly number of deaths (from all causes)

New Hampshire

Vermont

https://www.cdc.gov/nchs/nvss/vsrr/covid19/excess_deaths.htm
COVID-19 Infection Increases Risk of CV Events

Xie, Nature Medicine, 2022
COVID-19 Infection and Myocarditis

Myocarditis (inflammation of part of the heart muscle) occurs more frequently among COVID-19 patients.

16x higher risk of myocarditis among patients with COVID-19*

- About 150 cases per 100,000 patients with COVID-19
- About 9 cases per 100,000 patients without COVID-19

Vaccination is the best way to protect against COVID-19-related complications.

*Premier Healthcare Database Special COVID-19 Release

bit.ly/MMWR83121b
COVID Vaccines and Myocarditis

Among those >40 years of age, there were a total of 8 reports of myocarditis after either vaccine.

Oster et al, JAMA, 2022
COVID-Vaccine and Myocarditis

COVID-19 Infection Increases Risk of CV Events

Risk is highest in those that required hospitalization or ICU admission.

Risk increases measurably even in those with "mild cases".

Xie, Nature Medicine, 2022
Time to create or rebuild healthy habits and take control of your physical and mental well-being
Get on track with healthier eating habits.
2022: Jumpstart Healthy Eating Habits

LEARN THE SALTY SIX

Limit the amount of sodium you eat each day. Learn the Salty Six. These common foods can be loaded with excess sodium:

- Breads & Rolls
- Pizza
- Sandwiches
- Cold Cuts & Cured Meats
- Soups
- Burritos & Tacos

THE FACTS ON FAT

The American Heart Association recommends replacing bad (saturated) fats with good (unsaturated) fats as part of a healthy eating pattern.

LOVE IT

- UNSATURATED (POLY & MONO)
- Lowers rates of cardiovascular and allcause mortality
- Lowers bad cholesterol & triglyceride levels
- Provides essential fats your body needs but can’t produce itself

LIMIT IT

- SATURATED
- Increases risk of cardiovascular disease
- Raises bad cholesterol levels

LOSE IT

- ARTIFICIAL TRANS FAT, HYDROGENATED OILS & TROPICAL OILS
- Increases risk of heart disease
- Raises bad cholesterol levels
**Fit in 150+**
Get at least 150 minutes per week of moderate-intensity aerobic activity or 75 minutes per week of vigorous aerobic activity (or a combination of both), preferably spread throughout the week.

**Move More, Sit Less**
Get up and move throughout the day. Any activity is better than none. Even light-intensity activity can offset the serious health risks of being sedentary.

**Add Intensity**
Moderate to vigorous aerobic exercise is best. Your heart will beat faster, and you’ll breathe harder than normal. As you get used to being more active, increase your time and/or intensity to get more benefits.

**Add Muscle**
Include moderate- to high-intensity muscle-strengthening activity (like resistance or weight training) at least twice a week.

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Small changes can make a big difference.
Ask about your blood pressure and cholesterol numbers.
Know Your Numbers: Blood Pressure

**Blood Pressure Measurement Instructions**

- Don’t smoke, exercise, drink caffeinated beverages or alcohol within 30 minutes of measurement.
- Take at least two readings 1 min apart in morning before taking medications, and in evening before dinner. Record all results.
- Rest in a chair for at least 5 minutes with your left arm resting comfortably on a flat surface at heart level. Sit calmly and don’t talk.
- Place the bottom of the cuff above the bend of the elbow. Use properly calibrated and validated instrument. Check the cuff size and fit.

**Blood Pressure Categories**

<table>
<thead>
<tr>
<th>Blood Pressure Category</th>
<th>Systolic mm Hg (upper number)</th>
<th>and/or</th>
<th>Diastolic mm Hg (lower number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>Less than 120</td>
<td>and</td>
<td>Less than 80</td>
</tr>
<tr>
<td>Elevated</td>
<td>120 – 129</td>
<td>and</td>
<td>Less than 80</td>
</tr>
<tr>
<td>High Blood Pressure (Hypertension) Stage 1</td>
<td>130 – 139</td>
<td>or</td>
<td>80 – 89</td>
</tr>
<tr>
<td>High Blood Pressure (Hypertension) Stage 2</td>
<td>140 or higher</td>
<td>or</td>
<td>90 or higher</td>
</tr>
<tr>
<td>Hypertensive Crisis (consult your doctor immediately)</td>
<td>Higher than 180</td>
<td>and/or</td>
<td>Higher than 120</td>
</tr>
</tbody>
</table>

Dartmouth-Hitchcock Health
Know Your Numbers: Cholesterol

TRIGLYCERIDES + HDL + LDL = increased risk

lower! LDL lousy! higher! HDL healthy!
FIGHT STRESS WITH HEALTHY HABITS

1. **Slow down.**
   Plan ahead and allow enough time to get the most important things done without having to rush.

2. **Snooze more.**
   Try to get seven to nine hours of sleep each night. To fight insomnia, add mindfulness and activity.

3. **Let worry go.**
   The world won’t end if a few things fall off of your plate. Give yourself a break and just breathe.

4. **Laugh it up.**
   Laughter makes us feel good. Don’t be afraid to laugh out loud, even when you’re alone.

5. **Get connected.**
   A daily dose of friendship is great medicine. Make time to call friends or family so you can catch up.

6. **Get organized.**
   Use “to do” lists to help you focus on your most important tasks and take big projects one step at a time.

7. **Practice giving back.**
   Volunteer your time or spend time helping out a friend. Helping others helps you.

8. **Be active every day.**
   Exercise can relieve mental and physical tension. Find something you think is fun and stick with it.

9. **Give up the bad habits.**
   Too much alcohol, tobacco or caffeine can increase blood pressure. Cut back or quit to decrease anxiety.

10. **Lean into things you can change.**
    Make time to learn a new skill, work toward a goal, or to love and help others.

Learn more at heart.org/HealthyForGood
In 2022, Let Us Help You:

1. Create or rebuild healthy habits
2. Take control of your well-being
3. Check in with your healthcare provider
Thank You for Your Time and Attention