Cougar Employee Wellness and Fitness Program

Healthy mind, healthy body, healthy workplace.

A LEAP Proposal Project
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EMPLOYEE WELLNESS AND FITNESS PROGRAM

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Background

It is interesting to note that life expectancy has decreased in the United States since the start of the COVID-19 pandemic among all races and ethnicities. There has been a larger drop in life expectancy among people of color. Since 2019, people in the African American and Hispanic communities have had a decline in life expectancy by 4 or more years. White people have seen a life expectancy decline by 2.4 years. COVID-19 has continued to contribute to mortality and has been the third leading cause of death in the United States for three consecutive years. (www.healthsystemtracker.org)

On the other hand, life expectancy started to rebound in 2021 (during the second year of the pandemic) in other large and wealthy countries. Simply put, across every demographic group, Americans die at a younger age than their counterparts in other wealthy nations and this widened the pre-existing life expectancy gap between the United States and these other comparable countries. Sadly, although healthcare spending costs are significantly higher here compared to peer countries, the U.S. still has the lowest life expectancy. In 2021, on average, life expectancy in the United States was 76.1 years, whereas in other similarly wealthy countries, life expectancy was 82.4 years. Why is this the case? Health advancements have stalled in the United States while other countries have made progress and improvements in this regard. In general, poor diet/eating habits and sedentary lifestyles have contributed to a decline in the overall health of Americans. (www.healthsystemtracker.org, https://www.npr.org/sections/health-shots/)

To highlight the high healthcare costs in the United States, in 2021, per capita spending on health in the US was $12,914, whereas in other peer countries per capita health spending was at $6,003. This was more than double the average. (www.healthsystemtracker.org)

On average, there are about 13 million visits to doctor's offices with coronary atherosclerosis and other chronic ischemic heart disease as the primary diagnosis. There are about 38.2 million visits to doctor's offices with type 2 diabetes as the primary diagnosis (**www.cdc.gov**). These numbers can significantly decrease if Americans are more educated on healthcare options and if they have more access to healthcare.

Sadly, the United States has one of the highest obesity rates in the world. According to the Centers for Disease Control and Prevention, 100.1 million (41.9%) adults and 14.7 million (19.7%) children are affected by obesity in the United States. Due to the obesity rate, annual health care costs are approximately $147 billion in the US. Health Statistics on the National Institutes of Health indicated that about 1 in 3 adults are overweight and more than 2 in 5 adults have obesity and this includes severe obesity. These numbers are alarming and highlight the need for greater awareness on health care opportunities and resources.

People in the U.S. live shorter lives and spend much more on healthcare than people in peer countries

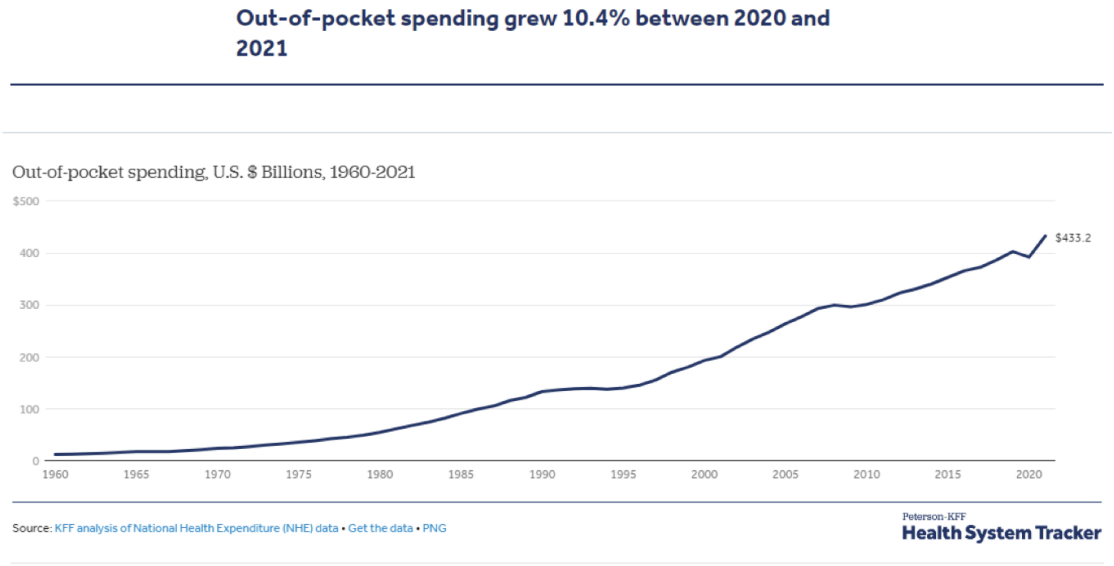
Life expectancy (2021) and per capita healthcare spending (2021 or nearest year, PPP adjusted)

Country	Life expectancy	Health spending, per capita
United States	76.1	$12,914
United Kingdom	80.8	$5,387
Germany	80.9	$7,383
Austria	81.3	$6,693
Netherlands	81.5	$6,190
Belgium	81.9	$5,274
Comparable Country Average	**82.4**	**$6,003**
France	82.5	$5,468
Sweden	83.2	$6,262
Australia	83.4	$5,627
Switzerland	84.0	$7,179
Japan	84.5	$4,666

Notes: See Methods section of "How does U.S. life expectancy compare to other countries?"

Source: KFF analysis of CDC, OECD, Japanese Ministry of Health, Labour, and Welfare, Australian Bureau of Statistics, and UK Office for Health Improvement and Disparities data • Get the data • PNG

Peterson-KFF Health System Tracker



Top three leading causes of death in the United States in 2022:

- Heart Disease
- Cancer
- COVID-19

Benefits of the Cougar Employee Wellness Program

"Every now and then go away, have a little relaxation, for when you come back to your work your judgment will be surer. Go some distance away because then the work appears smaller and more of it can be taken in at a glance and a lack of harmony and proportion is more readily seen." - Leonardo Da Vinci

Implementing the Cougar Employee Wellness and Fitness Program at College of the Canyons will have a significant impact and numerous benefits on the well-being of the employees and the college as a whole.

- **Boosted Physical Health:** The Cougar Employee Wellness program will encourage the COC (College of the Canyons) employees to adopt healthier behaviors such as exercising regularly, implementing a healthy eating habit, and getting enough sleep. These habits can result in improved physical health, reduced absences, and more efficiency.
- **Lower Stress:** The demands of working in a fast-paced and high-stress environment can take a toll on employees' mental health. The Employee Wellness program will be able to provide resources and support to help employees manage stress and practice healthy eating habits.
- **Increased Self-Confidence:** When employers invest in their employees' well-being, it can boost their morale and job satisfaction. This can lead to increased retention rates and improved employee performance**.**
- **Greater Engagement:** The Cougar Wellness program will provide opportunities for employees to connect with each other outside of work. By committing to a 12-week program, employees will be able to foster a sense of togetherness and social support.
- **Increased Productivity:** Employees who are healthier tend to be more beneficial in the workplace. This can mean less sick days taken off, more energy and motivation to complete work tasks and employees tend to maintain healthier behaviors that can lead to better work ethics such as better sleep.
- **Improves Employee Morale:** Employee Wellness Programs can add a variety to the workplace and add an element of fun! Employees who play together work, well together.

- **Reduced Healthcare Costs:** Employee wellness programs can result in significantly lowered medical costs for their employees.
- **Attracts Better Talent:** Besides a higher salary, job candidates look for wellness programs as part of benefits that are important.

Overall, enrolling in the Cougar Wellness program will provide employees with multiple benefits, from improved physical health and reduced stress to increased engagement opportunities. By implementing the Cougar Employee Wellness program, College of the Canyons can create a healthier, more engaged, and more productive community.

Mission

It is the mission of the Cougar Employee Fitness and Wellness Program to promote the health and wellness of staff through education and initiatives that:

- Encourage habits of health, wellness and fitness
- Increase awareness of factors and resources contributing to physical and mental well-being
- Increase awareness of resources and facilities on campus available for use
- Inspire and empower individuals to take responsibility for their own health
- Support a sense of community

Competition

There are close to thirty gyms in the Santa Clarita Valley. Gym memberships can range from $30 a month to close to $200. Currently, there would not be much competition for the Cougar Employee Wellness and Fitness Program, considering that it would be free for the participants to join and be offered at the Valencia campus.

Promotion and Outreach

The program will be marketed through:

- COC marketing, such as the Instagram page
- program flyer (APPENDIX),
- mass e-mail messaging to all employees
- presentation during FLEX week
- department and committee meeting presentations
- word of mouth

The initial emphasis for outreach will be to the COC faculty and staff. By promoting and implementing the above methods of marketing and awareness, we hope to raise awareness within COC of not only the importance of health in the workplace but of the many resources available for COC employees on campus itself. It is important that the COC community at large understands the importance of fitness and wellness and it is anticipated that this program will do just that. We also anticipate informing the Board of Trustees and administrators to promote understanding, importance and support of the program.

Program Details

The Cougar Employee Wellness Program is designed to encourage and engage employees of College of the Canyons in a wellness and fitness program. At the end of the program, participants will understand the importance of fitness and wellness. Participants will also be able to create a personalized wellness program, in which they can carry out once they have completed the program.

Faculty and staff members will be recruited to join the program. Flyers will be sent out to each department and division at the college. Additionally, flyers will be posted in common faculty and staff areas and program coordinators will ask to speak at meetings and recruit as well.

The program will be offered each semester. The program will meet twice a week at locations on campus (such as the field, weight room, gyms or fitness center). The participants

will exercise on their own for the other three days of the week. They will have access through their key FOB to the fitness center should they want to exercise there during the additional days. Other options can be walks around campus. There will be weekly check-ins as well, based on the availability of the participants and program coordinators. Each week, there will be a different agenda regarding the program. For example, some weeks there will be exercise sessions and other sessions will be information sessions. Information sessions will be opportunities to learn about the basic principles of fitness and health. Topics may include information on exercise, fitness, nutrition, wellness topics such as stress, meditation, and more. The program will be capped at 20 participants. More information on the agenda for the program will be provided below.

One of the main components of this program is the community feeling and group participation. We believe that this would increase participation and improve outcomes. Therefore, a Canvas shell will also be created, where participants can communicate with each other, whether it is to encourage one another or to plan to meet up on campus to exercise together on the days the group does not meet. This will also allow for the program facilitators and coordinators to share resources that may be beneficial to the progression of the program.

Funding:

One of the largest benefits of this program is that the facilities to run the program successfully are already in existence. There is no need to build any more facilities in order to run a successful employee wellness and fitness program. The anticipated major cost would be for the instructor who will run the program. A stipend would be issued for the faculty member that would be leading the program based on a 56-hour semester involvement and determined by rate

of pay for that individual. For employees who participate in the program, we can offer a certain amount of professional development hours towards FLEX.

Additionally, participants will receive a "swag bag" including a Cougar Wellness Program t-shirt, water bottle, notebook/pen for lecture components and upon completion, a keychain indicating their involvement in the program. We are anticipating each bag will cost $20 Via Promotionals. Copies of handouts or assessments will be done through the reprographics department on campus. For the nutritional component of the program, food items will be purchased to demonstrate real life examples of nutritional information, such as learning to read food labels or pairing different foods in order to achieve a more well-rounded and nutritional diet.

Participants who graduate the program will participate in an end of the semester celebration. This will include a small gathering, with food and beverages, to highlight the accomplishments of the participants along with a certificate of completion for their involvement.

Staffing

The Cougar Employee Fitness and Wellness Program will be coordinated and staffed by instructors in the Kinesiology department. One instructor per semester will direct the program.

Timeline

The program will begin in Fall 2023 (with a potential pilot program in Summer 2023).

Program Schedule

Week 1: Introduction, Orientation

Participants will be introduced to the guidelines and procedures of the program. There will be an orientation of materials, equipment and facilities. It will be up to the facilitator's discretion where the sessions will take place with prior notice to the participants. For example, some sessions will be at the fitness center, others in the weight room, others on the track, etc. There will also be a pre-program assessment to evaluate current physical fitness of participants (Appendix). Participants will sign any necessary release forms as well.

Week 2: Exercise Sessions (2)

Participants will engage in exercising in the facilities from 12:30-1:20pm. Exercise sessions will include a warmup, cardiovascular and muscular strength and endurance exercises and a cool-down.

Week 3: Information Session and Exercise Session

The beginning of the first meeting of the week will be an information and learning session. The topic will be the **5 Components of Physical Fitness**. The rest of the first meeting and second meeting will be an exercise session.

Week 4: Exercise Sessions (2)

Week 5: Information Session and Exercise Session

The beginning of the first meeting of the week will be an information and learning session. The topic will be the **FITT Principle**. The rest of the first meeting and second meeting will be an exercise session.

Week 6: Exercise Sessions (2)

Week 7: Information Session and Exercise Session

The beginning of the first meeting of the week will be an information and learning session. The topic will be **Nutrition**. The rest of the first meeting and second meeting will be an exercise session.

Week 8: Exercise Sessions (2)

Week 9: Information Session and Exercise Session

The beginning of the first meeting of the week will be an information and learning session. The topic will be **Work/Life Balance**. The rest of the first meeting and second meeting will be an exercise session.

Week 10: Exercise Sessions (2)

Week 11: Information Session and Exercise Session

The beginning of the first meeting of the week will be an information and learning session. The topic will be **Progressive Overload/SAID Principle**. The rest of the first meeting and second meeting will be an exercise session.

Week 12: Exercise Sessions (2)

Week 13: Information Session and Exercise Session

The beginning of the first meeting of the week will be an information and learning session. The topic will be on **Stress**. The rest of the first meeting and second meeting will be an exercise session.

Week 14: Exercise Sessions (2)

Week 15: Exercise Session and Post-Program Assessment

Week 16: Conclusion of Program

Participants may also choose to participate in the program again in subsequent semesters.

Facilities descriptions

1. **COUGAR FITNESS CENTER** (Cougar Cage top level, WPEK gymnasium)

A space for COC employees to work out. Located in West Physical Education (WPEK), above the main floor of the Athletics gymnasium. Equipment available include

- Strength equipment, including machines for a complete body circuit, free weights & kettlebells
- Cardiovascular machines including treadmills, ellipticals, exercise bikes, & stair climbers
- Stretching Area
- Filtered drinking fountains & restrooms in lobby below
- Storage shelves for personal belongings.
- Available anytime campus is open

*** Note: Safety Rules posted. The nearest AED machine (cardiac arrest) is in the lobby of WPEK. ADA access is through the Main Gym.*

2. **WEIGHT ROOM** (WPEK 14 bottom floor)

A space shared between Physical Education and Athletics Departments fully equipped for resistance training.

- Power Racks w/ benches fully stocked with free-weights
- Bumper Plates, Barbells & Hex bars for Olympic lifts
- Complete set of Dumbbells from 5lbs. – 125 lbs.
- TRX suspension exercise straps, elastic bands, performance battle ropes
- Complete assortment of Kettlebell weights & Medicine Balls

*** Note: The nearest AED machine (cardiac arrest) is in the hallway, between the locker rooms.*

3. Exercise Room WPEK 105

Large space great for group exercise classes, discussions and more. 105A has exercise equipment for available use such as exercise mats, yoga blocks and straps, steps and yoga balls.

4. SNAC FITNESS WALK (Valencia Campus)

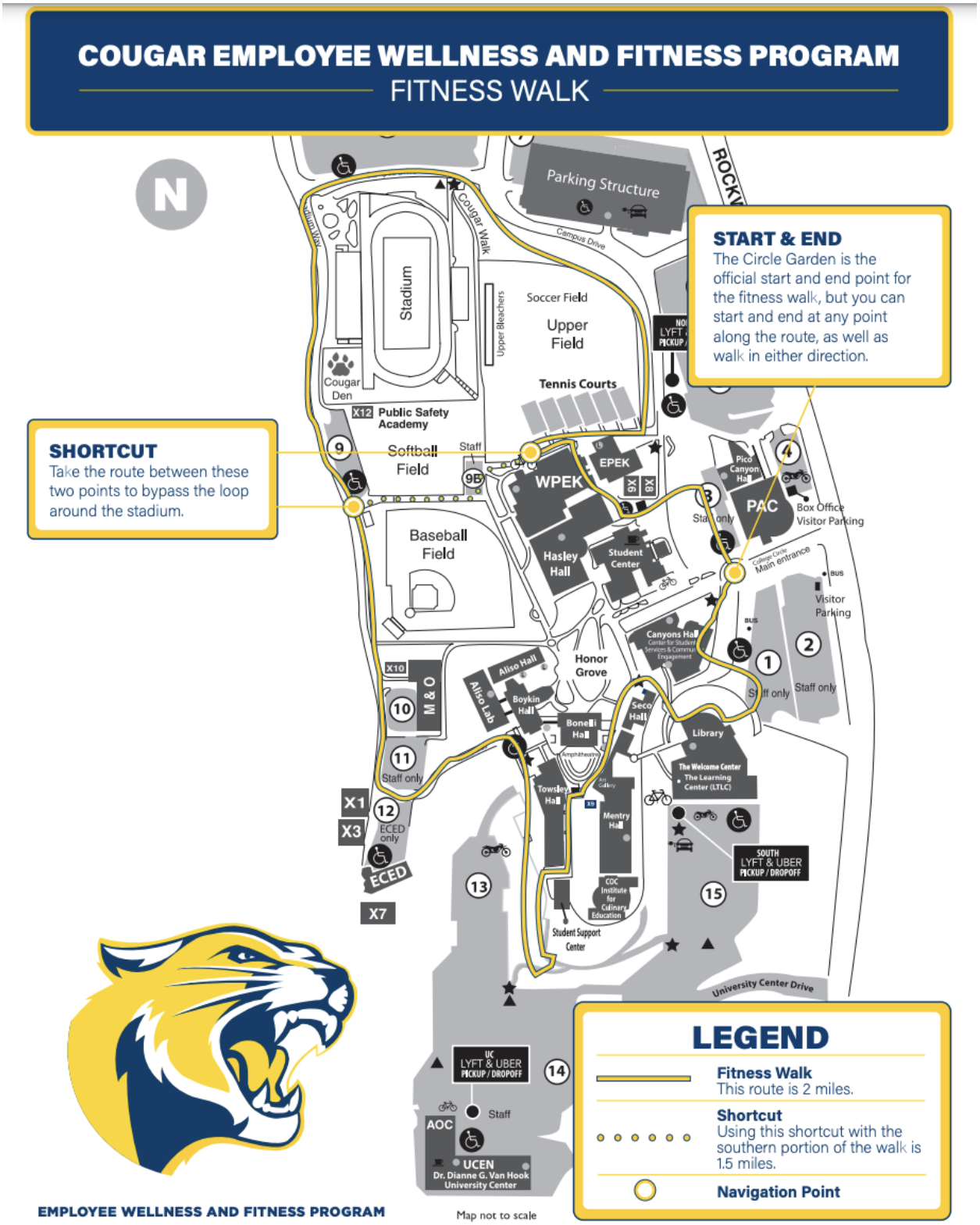
Currently, four stations are set up around campus that illustrate and describe exercises to do at each stop along the course. These are still up despite this club, Student Nutrition & Wellness Advocates of COC (SNAC), having been discontinued. The signage used for these has

been worn down and some are completely unreadable. New signs will be needed. A map for this program has been found and can be reformatted to separate from the (APPENDIX). Three stops are around the perimeter of campus that contain athletics facilities, and the fourth is in the same section as the community garden.

5. CROSS COUNTRY COURSE (Valencia Campus)

In the hills between the campus and the freeway is the trail. The trail cuts through wild grown areas and is perfect for taking a hike without wandering too far off trail.

APPENDIX A


COUGAR EMPLOYEE WELLNESS AND FITNESS PROGRAM
FITNESS WALK
START & END
The Circle Garden is the official start and end point for the fitness walk, but you can start and end at any point along the route, as well as walk in either direction.
SHORTCUT
Take the route between these two points to bypass the loop around the stadium.
Parking Structure
Campus Drive
Cougar Walk
Stadium
Upper Bleachers
Soccer Field
Upper Field
Cougar Den
Tennis Courts
X12 Public Safety Academy
Softball Field
Staff
WPEK
EPEK
PAC
Box Office
Visitor Parking
Baseball Field
Hasley Hall
Student Center
Main entrance
Visitor Parking
Canyons Hall
Honor Grove
Aliso Hall
Aliso Lab
Boykin Hall
Bonelli Hall
Seco Hall
Library
The Welcome Center
The Learning Center (LTLC)
M & O
Staff only
ECED only
ECED
Towsley Hall
Mentry Hall
COC Institute for Culinary Education
Student Support Center
SOUTH LYFT & UBER PICKUP / DROPOFF
UC LYFT & UBER PICKUP / DROPOFF
AOC
UCEN
Dr. Dianne G. Van Hook University Center
University Center Drive
LEGEND
Fitness Walk
This route is 2 miles.
Shortcut
Using this shortcut with the southern portion of the walk is 1.5 miles.
Navigation Point
EMPLOYEE WELLNESS AND FITNESS PROGRAM
Map not to scale

FLYER APPENDIX B

Cougar Employee Fitness and Wellness Program – APPENDIX C

Components of Physical Fitness

In order to carry out daily activities without being physically overwhelmed, a minimal level of fitness is required. To perform daily activities without fatigue, it is necessary to maintain health in five areas: cardiorespiratory endurance, muscular strength and endurance, flexibility, and body composition. These five areas are called the components of health-related fitness. Development of these areas will improve your quality of life, reduce your risk of chronic disease, and optimize your health and well-being. Each of these 5 areas will be explored in depth at a later time.

Flexibility

Flexibility is the range of motion of a joint or the ability for a joint to move freely in a range of motion. Flexibility is very important but an oftentimes overlooked component of physical fitness. If one does not have flexibility, muscles and joints can become stiff, resulting in limited range of motion and potential injury. Some ways to improve range of motion can include stretching exercises or yoga.

Muscular Strength

The amount of force you can put out to lift and carry heavy objects. Muscular strength helps to contribute to activities of daily living. Without muscular strength, we would feel weak and unable to keep up with the physical demands of our body. In order to increase muscular strength, we can train with heavy weights, working in 3-5 sets of 8-12 repetitions.

Muscular Endurance

Muscular endurance allows our body to perform muscular contractions for extended periods of time with fatigue. Instead of simply lifting for a couple of seconds, such as for muscular strength, muscular endurance exercises can include lifting or carrying for several minutes.

Cardiorespiratory endurance

Cardiorespiratory endurance is the ability to carry out prolonged, large muscle, dynamic movements at a moderate to high level of intensity. This relates to your heart's ability to pump blood and your lungs' ability to take in oxygen. Some examples of cardiorespiratory exercise include running, jumping, biking, swimming and dancing.

Body Composition

Body composition is the relative amount of fat mass to fat-free mass.

As previously stated, these areas are significant in that they influence your quality of life and overall health and wellness.

Cougar Employee Fitness and Wellness Program – APPENDIX D

Principles of Physical Fitness

FITT

In exercise, the amount of stress placed on the body can be controlled by four variables: Frequency, Intensity, Time (duration), and Type, better known as FITT. The FITT principle, as outlined by the American College of Sports Medicine (ACSM) falls under the larger principle of overload.

Frequency and Time

Each variable can be used independently or in combination with other variables to impose new stress and stimulate adaptation. Such is the case for frequency and time.

Frequency relates to how often exercises are performed over a period of time. In most cases, the number of walking or jogging sessions would be determined over the course of a week. A beginner may determine that 2–3 exercise sessions a week are sufficient enough to stimulate improvements. On the other hand, a seasoned veteran may find that 2–3 days is not enough to adequately stress the system. According to the overload principle, as fitness improves, so must the stress to ensure continued gains and to avoid plateauing.

The duration of exercise, or time, also contributes to the amount of stress experienced during a workout. Certainly, a 30-minute brisk walk is less stressful on the body than a 4-hour marathon.

Although independent of one another, frequency and time are often combined into the blanket term, volume. The idea is that volume more accurately reflects the amount of stress experienced. This can be connected to the progression principle. For example, when attempting to create a jogging plan, you may organize 2 weeks like this:

- Week 1: three days a week at 30 minutes per session
- Week 2: four days a week at 45 minutes per session

At first glance, this might appear to be a good progression of frequency and time. However, when calculated in terms of volume, the aggressive nature of the progression is revealed. In week 1, three days at 30 minutes per session equals 90 minutes of total exercise. In week two, this amount was doubled with four days at 45 minutes, equaling 180 minutes of total exercise. Doing too much, too soon, will almost certainly lead to burnout, severe fatigue, and injury. The

progression principle relates to an optimal overload of the body by finding an amount that will drive adaptation without compromising safety.

Type of Exercise

Simply put, the type of exercise performed should reflect a person's goals. In cardiorespiratory fitness, the objective of the exercise is to stimulate the cardiorespiratory system. Other activities that accomplish the same objective include swimming, biking, dancing, cross country skiing, aerobic classes, and much more. As such, these activities can be used to build lung capacity and improve cellular and heart function.

However, the more specific the exercise, the better. While vigorous ballroom dancing will certainly help develop the cardiorespiratory system, it will unlikely improve a person's 10k time. To improve performance in a 10k, athletes spend the majority of their time training by running, as they will have to do in the actual 10k. Cyclists training for the Tour de France, spend up to six hours a day in the saddle, peddling feverishly. These athletes know the importance of training the way they want their body to adapt. This concept, called the principle of specificity, should be taken into consideration when creating a training plan.

In this discussion of type and the principle of specificity, a few additional items should be considered. Stress, as it relates to exercise, is very specific. There are multiple types of stress. The three main stressors are metabolic stress, force stress, and environmental stress. Keep in mind, the body will adapt based on the type of stress being placed on it.

Metabolic stress results from exercise sessions when the energy systems of the body are taxed. For example, sprinting short distances requires near maximum intensity and requires energy (ATP) to be produced primarily through anaerobic pathways, that is, pathways not requiring oxygen to produce ATP. Anaerobic energy production can only be supported for a very limited time (10 seconds to 2 minutes). However, distance running at steady paces requires aerobic energy production, which can last for hours. As a result, the training strategy for the distance runner must be different than the training plan of a sprinter, so the energy systems will adequately adapt.

Likewise, force stress accounts for the amount of force required during an activity. In weightlifting, significant force production is required to lift heavy loads. The type of muscles being developed, fast-twitch muscle fibers, must be recruited to support the activity. In walking and jogging, the forces being absorbed come from the body weight combined with forward momentum. Slow twitch fibers, which are unable to generate as much force as the fast twitch fibers, are the type of muscle fibers primarily recruited in this activity. Because the force

requirements differ, the training strategies must also vary to develop the right kind of musculature.

Environmental stress, such as exercising in the heat, places a tremendous amount of stress on the thermoregulatory systems. As an adaptation to the heat, the amount of sweating increases as does plasma volume, making it much easier to keep the body at a normal temperature during exercise. The only way to adapt is through heat exposure, which can take days to weeks to properly adapt.

In summary, to improve performance, being specific in your training, or training the way you want to adapt, is paramount.

Intensity

Intensity, the degree of difficulty at which the exercise is carried out, is the most important variable of FITT. More than any of the other components, intensity drives adaptation. Because of its importance, it is imperative for those beginning a fitness program to quantify intensity, as opposed to estimating it as hard, easy, or somewhere in between. Not only will this numeric value provide a better understanding of the effort level during the exercise session, but it will also help in designing sessions that accommodate individual goals.

How then can intensity be measured? Heart rate is one of the best ways to measure a person's effort level for cardiorespiratory fitness. Using a percentage of maximum lifting capacity would be the measure used for resistance training.

Measuring Intensity

Target Heart Rate and Estimated Maximum Heart Rate

Exercise intensity can be measured using either heart rate or the rating of perceived exertion (RPE) method. We will look at each of these methods in turn. There are two methods of using heart rate to measure exercise intensity: the percentage of maximal heart rate method and the heart rate reserve (HRR), or Karvonen method.

As its name suggests, the percentage of maximal heart rate method involves prescribing exercise at a certain percentage of maximum heart rate. To find out a person's true maximum heart rate we need to measure it in a laboratory. However, for most people this is impractical; therefore, we can estimate maximum heart rate using the formula '220 – age'.

Example 1: Percentage Heart Rate Method Case study: 'Mariella,' age 30

Step 1. Calculate maximum heart rate (HRmax) Estimated HRmax = 220 – age = 220 – 30
= 190 bpm (beats per minute)

Step 2. Calculate exercise intensity
ACSM guidelines = 55–90% of HRmax
Lower target (55%) = 190 × 55%
= 190 × 0.55= 104.5 bpm
(we would round this up to 105 bpm)

Upper target (90%) = 190 × 90%
= 190 × 0.90
= 171 bpm

This formula gives us an idea of maximum heart rate, but we must remember that it is just an estimate and not completely accurate. Therefore, when using this method according to ACSM guidelines, Mariella should exercise at a heart rate somewhere between 105 and 171 bpm. This is quite a wide range so, depending on her fitness levels, you would need to decide whether to prescribe Mariella exercise to the upper or lower end of this scale.

Please note that there are online calculators available to calculate all of this information for you. Once such calculator can be found at:

http://www.sparkpeople.com/resource/calculator_target.asp

The HRR method is thought to be more accurate than the percentage of maximal heart rate method because it takes the individual's resting heart rate into account. The formula for calculating HRR can be seen in Box 2. The ACSM recommends that to improve aerobic fitness, exercise intensity should be set at either 40–85 per cent of (HRR) or 55–90 per cent of maximum heart rate (HRmax) (Pollock et al., 1998). These ranges are deliberately broad to reflect different levels of fitness; that is, someone with relatively low levels of fitness who has just started an exercise program may need to work on the lower end of the scale, whereas someone who has a higher level of fitness, perhaps who has been exercising for a while, may need to work at an intensity towards the upper end of the scale. This demonstrates the importance of progression in an exercise program.

Example 2: Heart Rate Reserve Method Case study: 'Mariella,' age 30

Step 1. Calculate maximum heart rate (HRmax)
Estimated HRmax = 220 - age =220–30
= 190 bpm (beats per minute)

Step 2. Measure resting heart rate (HRrest)
You would measure this either using a heart rate monitor or manually, using your fingers. Ideally it should be measured first thing in the morning. Let's imagine that Mariella's HRrest has been measured at 70 bpm.

Step 3. Calculate heart rate reserve (HRR)
HRR = HRmax – HRrest =190–70= 120 bpm

Step 4. Calculate exercise intensity
ACSM guidelines = 40–85% HRR

Lower target (40%) = (HHR × 40%) + HRrest
=(120×0.40)+70
=48+70
= 118 bpm
Upper target (85%) = (HHR × 85%) + HRrest
=(120×0.85)+70
=102+70
= 172 bpm

Using this method, according to ACSM guidelines, Mariella should exercise somewhere between 118 and 172 bpm.

Borg Scale

An alternative to using heart rate methods is the RPE method of measuring exercise intensity. However, you should note that it is difficult to give a general recommendation for RPE, as it is by its very nature open to personal interpretation; that is, what I consider to be a 12 may be different to what you consider to be a 12. RPE can be a useful way of measuring exercise intensity when heart rate monitoring is difficult or inappropriate. For example, some types of medication (e.g., beta blockers) given to people with hypertension lower the heart rate, and therefore heart rate measurement is not appropriate for people on this type of medication. The Borg Rating of Perceived Exertion (RPE) Scale is one way to measure perceived exertion. In

medicine, this is used to document the patient's exertion during a test, and sports coaches use the scale to assess the intensity of training and competition. The original scale introduced by Gunnar Borg rated exertion on a scale of 6-20. The seemingly odd range of 6-20 is to follow the general heart rate of a healthy adult by multiplying by 10. For instance, a perceived exertion of 12 would be expected to coincide with a heart rate of roughly 120 beats per minute.

SET POINTS ON SCALE

It ranges from 6 to 20, where 6 means "no exertion at all" and 20 means "maximal exertion." Choose the number from below that best describes your level of exertion. This will give you a good idea of the intensity level of your activity, and you can use this information to speed up or slow down your movements to reach your desired range.

Try to appraise your feeling of exertion as honestly as possible, without thinking about what the actual physical load is. Your own feeling of effort and exertion is important, not how it compares to other people's. Look at the scales and the expressions and then give a number.

6 No exertion at all
7 Extremely light (7.5)
8
9 Very light
10
11 Light
12
13 Somewhat hard
14
15 Hard
16
17 Very hard
18
19 Extremely hard
20 Maximal exertion

9 corresponds to "very light" exercise. For a healthy person, it is like walking slowly at his or her own pace for some minutes.

13 On the scale is "somewhat hard" exercise, but it still feels OK to continue.
17, Or "very hard," is very strenuous. A healthy person can still go on, but he or she really has to push him- or herself. It feels very heavy, and the person is very tired.

19 on the scale is an extremely strenuous exercise level. For most people this is the most strenuous exercise they have ever experienced.

TAKING YOUR HEART RATE

Generally, to determine whether you are exercising within the heart rate target zone, you must stop exercising briefly to take your pulse. You can take the pulse at the neck, the wrist, or the chest. We recommend the wrist. You can feel the radial pulse on the artery of the wrist in line with the thumb. Place the tips of the index and middle fingers over the artery and press lightly. Do not use the thumb. Take a full 60-second count of the heartbeats or take for 30 seconds and multiply by 2. Start the count on a beat, which is counted as "zero." If this number falls between 85 and 119 bpm in the case of the 50-year- old person, he or she is active within the target range for moderate-intensity activity.

Rest, Recovery, and Periodization

For hundreds of years, athletes have been challenged to balance their exercise efforts with performance improvements and adequate rest. The principle of rest and recovery (or principle of recuperation) suggests that rest and recovery from the stress of exercise must take place in proportionate amounts to avoid too much stress. One systematic approach to rest and recovery has led exercise scientists and athletes alike to divide the progressive fitness training phases into blocks, or periods. As a result, optimal rest and recovery can be achieved without overstressing the athlete. This training principle, called periodization, is especially important to serious athletes but can be applied to most exercise plans as well. The principle of periodization suggests that training plans incorporate phases of stress followed by phases of rest.

Training phases can be organized on a daily, weekly, monthly, and even multi-annual cycles, called micro-, meso-, and macrocycles, respectively. An example of this might be:

Week	Frequency	Intensity	Time	Type
1	3 days	40% HRR	25 min	walk
2	4 days	40% HRR	30 min	walk
3	4 days	50% HRR	35 min	walk
4	2 days	30% HRR	30 min	other

As this table shows, the volume and intensity changes from week 1 to week 3. But, in week 4, the volume and intensity drops significantly to accommodate a designated rest week. If the chart were continued, weeks 5-7 would be "stress" weeks and week 8 would be another rest week. This pattern could be followed for several months.

Without periodization, the stress from exercise would continue indefinitely eventually leading to fatigue, possible injury, and even a condition known as overtraining syndrome. Overtraining syndrome is not well understood. However, experts agree that a decline in performance resulting from psychological and physiological factors cannot be fixed by a few days' rest. Instead, weeks, months, and sometimes even years are required to overcome the symptoms of overtraining syndrome. Symptoms include the following:

- weight loss
- loss of motivation
- inability to concentrate or focus
- feelings of depression
- lack of enjoyment in activities normally considered enjoyable
- sleep disturbances
- change in appetite

Reversibility

Chronic adaptations are not permanent. As the saying goes, "Use it or lose it."

The principle of reversibility suggests that activity must continue at the same level to keep the same level of adaptation. As activity declines, called detraining, adaptations will recede.

In cardiorespiratory endurance, key areas, such as VO_{2max}, stroke volume, and cardiac output all declined with detraining while submaximal heat rate increased. In one study, trained subjects were given bed rest for 20 days. At the end of the bed rest phase, VO_{2max} had fallen by 27% and stroke volume and cardiac output had fallen by 25%. The most well-trained subjects in the study had to train for nearly 40 days following bed rest to get back into pre-rest condition. In a study of collegiate swimmers, lactic acid in the blood after a 2-minute swim more than doubled after 4 weeks of detraining, showing the ability to buffer lactic acid was dramatically affected.

Not only is endurance training affected, but muscular strength, muscular endurance, and flexibility all show similar results after a period of detraining.

Individual Differences

While the principles of adaptation to stress can be applied to everyone, not everyone responds to stress in the same way. In the HERITAGE Family study, families of 5 (father, mother, and 3 children) participated in a training program for 20 weeks. They exercised 3 times per week, at

75% of their VO_{2max}, increasing their time to 50 minutes by the end of week 14. By the end of the study, a wide variation in responses to the same exercise regimen was seen by individuals and families. Those who saw the most improvements saw similar percentage improvements across the family and vice versa. Along with other studies, this has led researchers to believe individual differences in exercise response are genetic. Some experts estimate genes to contribute as much as 47% to the outcome of training.

In addition to genes, other factors can affect the degree of adaptation, such as a person's age, gender, and training status at the start of a program. As one might expect, rapid improvement is experienced by those with a background that includes less training, whereas those who are well trained improve at a slower rate.

Physical Activity Guidelines

Being physically active is one of the most important actions that people of all ages can take to improve their health. Physical activity fosters normal growth and development and can make people feel better, function better, sleep better, and reduce the risk of a large number of chronic diseases. Health benefits start immediately after exercising, and even short episodes of physical activity are beneficial. Even better, research shows that just about everyone gains benefits: men and women of all races and ethnicities, young children to older adults, women who are pregnant or postpartum (first year after delivery), people living with a chronic condition or a disability, and people who want to reduce their risk of chronic disease. The evidence about the health benefits of regular physical activity is well established, and research continues to provide insight into what works to get people moving, both at the individual and community level. Achieving the benefits of physical activity depends on our personal efforts to increase activity in ourselves, family, friends, patients, and colleagues. Action is also required at the school, workplace, and community levels.

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Nutrition

Acceptable Macronutrient Distribution Range (AMDR)

The AMDR describes the proportions of daily caloric intake that should be carbohydrates, lipids, and proteins. Basically the AMDR provides guidelines on how many macronutrient calories one should consume a day. According to the AMDR, the range of caloric intake in a daily diet should be:

- Carbohydrates: 45-65%
- Lipids: 20-35%
- Proteins: 10-35%

Dietary Reference Intakes (DRI)

The DRI's are reference values of nutrient intake that help with nutrition planning and assessment of healthy individuals. There are four measures that together comprise the DRI: Recommended Dietary Allowance (RDA): the average daily dietary intake level that is sufficient to meet the nutrient requirement of nearly all (about 97%) healthy individuals in a group. This is the basic quantity of a nutrient recommended.

- **Adequate Intake (AI):** a value based on observed or experimentally determined approximations of nutrient intake by a group (or groups) of healthy people—used when an RDA cannot be determined. This is the minimum amount of a nutrient needed for maintaining health.
- **Tolerable Upper Intake Level (UL):** the highest level of daily nutrient intake that is likely to pose no risk of adverse health effects to almost all individuals in the general population. As intake increases above the UL, the risk of adverse effects increases. This is the maximum that would be consumed prior to developing negative effects of eating too much. This is not a level that is met, but rather one that is avoided to prevent a decrease in health.
- **Estimated Average Requirement (EAR):** a nutrient intake value that is estimated to meet the requirement of half the healthy individuals in a group. These nutrient values should be used as goals for dietary intake for health.

4 Key Concepts for Personalizing a Healthy Diet

Personalizing meal plans can be extremely beneficial psychologically as well as physically. Knowing that one is eating healthy reduces some of the subconscious doubts about doing what needs to be done to be well. However, as with every healthy practice, there can be pitfalls. To help avoid these, there are 4 approaches that can be taken:

1. Assessing and changing your diet
2. Staying committed to a healthy diet
3. Try additions and substitutions to bring your current diet closer to your goals
4. Plan ahead for challenging situations

Carbohydrates

Carbohydrates have become, surprisingly, quite controversial. Some people passionately extol the merits of carbohydrates, while others berate them as nutritional assassins. However, it is important to understand that carbohydrates are a diverse group of compounds that have a multitude of effects on bodily functions. Thus, trying to make blanket statements about carbohydrates is not a good idea.

Fats (Lipids)

Lipids, commonly referred to as fats, have a poor reputation among most people. “Fat free” labeling on packaging is often perceived as healthy. We do need to consume certain fats, and we should try to incorporate these fats into our diets for their health benefits. However, consumption of certain fats is also associated with a greater risk of developing chronic disease(s).

There are different categories of lipids:

- Triglycerides
- Oils
- Cholesterol

These compounds are grouped together because of their structural and physical similarities. All lipids are insoluble in water, are oily to the touch, and together with carbohydrates and proteins constitute the principal structural material of the body.

Protein

Proteins are crucial for the nourishment, renewal, and continuance of life. Examples of proteins can be animal product, animal byproduct, quinoa, beans, soy, tofu and much more!

Water

Water is made up of hydrogen and oxygen (H2O) and is the only macronutrient that doesn’t provide energy. Humans are 65% water! The body needs water to regulate temperature, moisten tissues in the mouth, eyes, and nose, lubricate joints, protect organs, prevent constipation, reduce the burden on kidneys and liver by helping to flush out waste, and to dissolve nutrients as part of the digestive process.

Although a person can survive for several weeks without food, the body cannot survive longer than a few days without fluids. A loss of water equivalent to:

- 1% of body weight is enough to cause thirst and to impact the ability to concentrate;
- 4% loss of hydration results in dizziness and reduced muscle power;
- 6% loss of fluids causes the heart to race and sweating ceases;
- 7% loss of hydration results in collapse and subsequent death if fluids are not replaced.

Water Intake

In a normal diet, fluid is gained via food as well as in drinks. Along with water, most drinks such as tea, coffee, juices, and milk hydrate the body. However, alcoholic drinks may not contribute to body fluids as alcohol is a diuretic, a substance that increases the output of urine by the body. Caffeine, such as found in energy drinks, coffee, tea, and sodas, is also a diuretic. Caffeine has also been shown to have an impact on overall hydration, but significant amounts (300+ mg) are typically necessary to exhibit negative effects on the body.

The amounts of water in different foods vary.

Water Content of Specific Foods

Food	Percentage of Water Content
Water	100%
Fat-free milk, cantaloupe, strawberries, watermelon, lettuce, cabbage, celery, spinach, pickles, squash (cooked)	90–99%
Fruit juice, yogurt, apples, grapes, oranges, carrots, broccoli (cooked), pears, pineapple	80–89%
Bananas, avocados, cottage cheese, ricotta cheese, potato (baked), corn (cooked), shrimp	70–79%
Pasta, legumes, salmon, ice cream, chicken breast	60–69%
Ground beef, hot dogs, feta cheese, tenderloin steak (cooked)	50–59%
Pizza	40–49%

Cheddar cheese, bagels, bread	30–39%
Pepperoni sausage, cake, biscuits	20–29%
Butter, margarine, raisins	10–19%
Walnuts, peanuts (dry roasted), chocolate chip cookies, crackers, cereals, pretzels, taco shells, peanut butter	1–9%
Oils, sugars	0%

Vitamins: Water-Soluble or Fat-Soluble

Vitamins are categorized as either water-soluble or fat-soluble based on how they are dissolved in the body. Water soluble vitamins are dissolved in water and absorbed during digestion. Excess water-soluble vitamins are excreted through urine. Fat-soluble vitamins are absorbed through the digestive process with the help of fats (lipids).

Excess fat-soluble vitamins can build up in the body and become toxic. Vitamin supplements can be dangerous particularly with fat-soluble vitamins because people can overdose.

A balanced diet includes all of the vitamins and minerals a person needs daily.

Water-Soluble Vitamins

There are nine water-soluble vitamins: Vitamin C, and eight Vitamin B's.

Fat-Soluble Vitamins

There are four fat-soluble vitamins: Vitamins A, D, E, and K.

Minerals

Minerals are essential, non-caloric nutrients that are in all of our food and are essential for normal physiologic processes in the body. Minerals are micronutrients, which means humans only need to eat them in small quantities. Minerals assist body functions that range from bone strength to regulating your heartbeat.

When plants take up the water through their roots, dissolved minerals from within the soil are absorbed by the plant. When people eat plants, they are likely ingesting minerals found in the plant. Animals are able to concentrate minerals in their tissues, so meats and other foods derived from animals often contain a higher concentration of minerals.

There are two categories of minerals: major minerals and trace minerals. The classification of a mineral as major or trace depends on how much of the mineral the body needs.

Major minerals include:

- Calcium
- Phosphorus
- Sodium
- Potassium
- Magnesium

Trace minerals include:

- Iron
- Fluoride
- Zinc
- Copper
- Iodine
- Manganese
- Chloride
- Selenium

Terms to Know

Calories

Pay attention to whether the caloric content of the food is per serving or per package. Also, some food labels indicate calories before or after preparation.

Fats

The food label includes all fats. Note that the label indicates different types of fats. A later chapter will address different fats and how they are important in human nutrition.

Cholesterol

Dietary cholesterol is a major factor in cardiovascular health. Limiting the intake of cholesterol can prevent heart disease.

Sodium

Another major factor in promoting good health is limiting the amount of sodium intake.

Carbohydrates

The food label includes simple and complex carbohydrates. Note that the label indicates different types of carbohydrates; a later chapter will address these and how they are important in human nutrition.

Proteins

Protein intake needs to be carefully monitored because over or under consumption of protein can cause severe issues.

Vitamins and Minerals

There are four vitamins and minerals (Vitamin D, Calcium, Iron, and Potassium) that are required on food labels; however, the label might include more than these four.

Ingredients

The ingredients are listed in order of their content per volume. If sugar is listed as the first ingredient, there is more sugar in the food than any other ingredient. The last ingredient has the least amount in the food.

KEY RECOMMENDATIONS:

- Prevent and/or reduce overweight and obesity through improved eating and physical activity behaviors.
- Control total calorie intake to manage body weight. For people who are overweight or obese, this will mean consuming fewer calories from foods and beverages.
- Increase physical activity and reduce time spent in sedentary behaviors.
- Maintain appropriate calorie balance during each stage of life—childhood, adolescence, adulthood, pregnancy and breastfeeding, and older age.

Cougar Employee Fitness and Wellness Program – APPENDIX F

YOUR BODY'S RESPONSE TO STRESS

Fight or Flight Response

When we experience excessive stress, either from internal worry or external circumstance, a bodily reaction called the "fight-or-flight" response will be triggered. Harvard physiologist Walter Cannon originally defined it. The response system represents the genetic impulse to protect ourselves from bodily harm, but also can result in negative health effects. According to Cannon's theory, during stress-response processes, the sympathetic nervous system increases the heart rate and releases chemicals to prepare our body to either fight or flee. When the fight-or-flight response system gets activated, it tends to perceive everything in the environment as a potential threat to survival.

COMMON SIGNS AND SYMPTOMS OF STRESS

Everyone responds to stress a little differently. Symptoms may vary person to person. Here are some of the signs to look for:

- Not eating or eating too much
- Feeling like you have no control
- Needing to have too much control
- Forgetfulness
- Headaches
- Lack of energy
- Lack of focus
- Trouble getting things done
- Poor self-esteem
- Short temper
- Upset stomach
- Back pain
- General aches and pains

MANAGING STRESS

Everyone has to deal with stress. There are steps you can take to help you handle stress in a positive way and keep it from making you sick.

Try these tips to keep stress in check:

Develop a new attitude

- Become a problem solver. Make a list of the things that cause stress. From your list, figure out which problems you can solve now and which are beyond your control for the moment. From your list of problems that you can solve now, start with the little

ones. Learn how to calmly look at a problem, think of possible solutions, and take action to solve the problem. Being able to solve small problems will give you confidence to tackle the big ones. And feeling confident that you can solve problems will go a long way to helping you feel less stressed.

- Be flexible. Sometimes, it's not worth the stress to argue. Give in once in a while or meet people halfway.
- Get organized. Think ahead about how you're going to spend your time. Write a to-do list. Figure out what's most important to do and do those things first.
- Set limits. When it comes to things like work and family, figure out what you can really do. There are only so many hours in the day. Set limits for yourself and others. Don't be afraid to say NO to requests for your time and energy.
- Make stress your friend! Allow yourself to view stress as something that can help you, not work against you. For example, next time you feel your heart racing or your breathing increasing, think of it as your body preparing you to take action against what is stressing you out (TED Talk, How to Make Stress Your Friend).

Relax

- Take deep breaths. If you're feeling stressed, taking a few deep breaths makes you breathe slower and helps your muscles relax.
- Stretch. Stretching can also help relax your muscles and make you feel less tense. Massage tense muscles. Having someone massage the muscles in the back of your neck and upper back can help you feel less tense.
- Take time for yourself. We all have lots of things that we have to do. But often we don't take the time to do the things that we really want to do. It could be listening to music, reading a good book, or going to a movie. Think of this as an order from your doctor, so you won't feel guilty!

Take care of your body

- Get enough sleep. Getting enough sleep helps you recover from the stresses of the day. Also, being well-rested helps you think better so that you are prepared to handle problems as they come up. Most adults need 7 to 9 hours of sleep a night to feel rested.
- Eat right. Try to fuel up with fruits, vegetables, beans, and whole grains. Don't be fooled by the jolt you get from caffeine or high-sugar snack foods. Your energy will wear off, and you could wind up feeling more tired than you did before.
- Get moving. Getting physical activity can not only help relax your tense muscles but improve your mood. Research shows that physical activity can help relieve symptoms of depression and anxiety.

- Don’t deal with stress in unhealthy ways. This includes drinking too much alcohol, using drugs, smoking, or overeating.

Connect with others

- Share your stress. Talking about your problems with friends or family members can sometimes help you feel better. They might also help you see your problems in a new way and suggest solutions that you hadn't thought of.
- Get help from a professional if you need it. If you feel that you can no longer cope, talk to your doctor. She or he may suggest counseling to help you learn better ways to deal with stress. Your doctor may also prescribe medicines, such as antidepressants or sleep aids.
- Help others. Volunteering in your community can help you make new friends and feel better about yourself.

COPING WITH STRESS

The effects of stress tend to build up over time. Taking practical steps to maintain your health and outlook can reduce or prevent these effects. The following are some tips that may help you to cope with stress:

- Seek help from a qualified mental health care provider if you are overwhelmed, feel you cannot cope, have suicidal thoughts, or are using drugs or alcohol to cope.
- Get proper health care for existing or new health problems.
- Stay in touch with people who can provide emotional and other support. Ask for help from friends, family, and community or religious organizations to reduce stress due to work burdens or family issues, such as caring for a loved one.
- Recognize signs of your body's response to stress, such as difficulty sleeping, increased alcohol and other substance use, being easily angered, feeling depressed, and having low energy.
- Set priorities-decide what must get done and what can wait, and learn to say no to new tasks if they are putting you into overload.
- Note what you have accomplished at the end of the day, not what you have been unable to do.
- Avoid dwelling on problems. If you can't do this on your own, seek help from a qualified mental health professional who can guide you.
- Schedule regular times for healthy and relaxing activities.
- Explore stress coping programs, which may incorporate meditation, yoga, tai chi, or other gentle exercises.
- Exercise regularly - just 30 minutes per day of gentle walking can help boost mood and reduce stress.

EXERCISE AND STRESS

Exercise builds stronger bodies only if we push ourselves beyond our regular level of strength and endurance. Progressing in your intellectual skills occurs only by going beyond your adaptation level for the complexity and amount of knowledge you must acquire. Stress as "challenge" enhances physical and emotional well-being. Mountain climbers want risk and challenge, but they want the type that they feel they can master and mostly control. They don't want to be perfectly in control because then the challenge would not be so great. They want to be on the edge between in-control and having to use every degree of skill, concentration, and problem solving to succeed. The same is true of race car drivers, downhill skiers, chess players, musicians, and artists.

These activities have been described by Csikszentmihalyi as inducing the experience of "flow" that totally captures the attention, makes it very easy to continue, and very hard to stop. There are many other activities and professions that produce "flow", but the essence of the experience is to be on the edge of challenge and failure with the perception that your own efforts will make the difference between good and bad outcomes. In these conditions stress builds healthier bodies and higher well-being. People who experience "flow" frequently report high degrees of satisfaction in life.

Physiological Toughness Model

There is also a psychophysiological framework for explaining how exercise cannot only reduce the immediate effects of stress but also can enhance the recovery from stressors. This framework is called the Physiological Toughness Model and it theorizes that intermittent but regular exposure to stressors, like exercise, can lead to psychological coping, emotional stability, and physiological changes. These physiological changes include increases in endorphins and reductions in stress hormones and lead to improvements in performance during challenging/threatening situations, strengthening of immune system functioning, and improvements in stress tolerance.

MEDITATION AND HEALTH

Many people practice meditation for a number of health-related purposes. A 2007 national government survey found that 9.4% of respondents had used meditation in the past 12 months.

What is Meditation?

The term meditation refers to a group of techniques which may be practiced for many reasons, such as to increase calmness and physical relaxation, to improve psychological balance, to cope

with illness, or to enhance overall wellness. Most types of meditation have four elements in common:

- A quiet location. Meditation is usually practiced in a quiet place with as few distractions as possible. This can be particularly helpful for beginners.
- A specific, comfortable posture. Depending on the type being practiced, meditation can be done while sitting, lying down, standing, walking, or in other positions.
- A focus of attention. Focusing one's attention is usually a part of meditation. For example, the meditator may focus on a mantra (a specially chosen word or set of words), an object, or the sensations of the breath.
- Having an open attitude. During meditation this means letting distractions come and go naturally without judging them.

How Can Meditation Affect My Health?

It is not fully known what changes occur in the body during meditation; whether they influence health; and, if so, how. Research is under way to find out more about meditation's effects, how it works, and diseases and conditions for which it may be most helpful.

The National Center for Complementary and Alternative Medicine (NCCAM) is the federal government's lead agency for scientific research on complementary and alternative medicine (CAM). Some recent NCCAM-supported studies have been investigating meditation for relieving stress in caregivers for elderly patients with dementia and for relieving asthma symptoms.

Is Meditation Right For Me?

Meditation is considered to be safe for healthy people, but if you are thinking about using meditation practices to prevent asthma attacks, to control high blood pressure, to reduce arthritis pain, or for any other medical reason, be smart.

RELAXATION TECHNIQUES

Relaxation techniques include a number of practices such as progressive relaxation, guided imagery, biofeedback, self-hypnosis, and deep breathing exercises. The goal is similar in all: to consciously produce the body’s natural relaxation response, characterized by slower breathing, lower blood pressure, and a feeling of calm and well-being.

Relaxation techniques (also called relaxation response techniques) may be used by some to release tension and to counteract the ill effects of stress. Relaxation techniques are also used to induce sleep, reduce pain, and calm emotions. This fact sheet provides a general overview of relaxation techniques and suggests sources for additional information.

Key Points

- Relaxation techniques are used for a variety of health-related purposes, such as counteracting the effects of stress on the body.
- Most relaxation techniques can be self-taught and self-administered.
- Relaxation techniques are generally safe, but there is limited evidence of usefulness for specific health conditions. Research is under way to find out more about relaxation and health outcomes.
- Do not use relaxation techniques as a replacement for conventional care or to postpone seeing a doctor about a medical problem.
- Tell your health care providers about any complementary and alternative practices you use. Give them a full picture of what you do to manage your health. This will help ensure coordinated and safe care.

About Relaxation Techniques

Relaxation is more than a state of mind; it physically changes the way your body functions. When your body is relaxed breathing slows, blood pressure and oxygen consumption decrease, and some people report an increased sense of well-being. This is called the “relaxation response.” Being able to produce the relaxation response using relaxation techniques may counteract the effects of long-term stress, which may contribute to or worsen a range of health problems including depression, digestive disorders, headaches, high blood pressure, and insomnia.

Relaxation techniques often combine breathing and focused attention on pleasing thoughts and images to calm the mind and the body. Most methods require only brief instruction from a book or experienced practitioner before they can be done without assistance. These techniques may be most effective when practiced regularly and combined with good nutrition, regular exercise, and a strong social support system.

LEAP Team Member Biographies

Robin Behbood: My passion is working in education and helping students get one step closer to reaching their academic goals. I enjoy the outdoors, hiking, evening walks, waterfalls, and beautiful sunsets. I absolutely love to travel and experience new cultures. I also have a love for photography and capturing memories that serve as timeless treasures. I am currently part of two book clubs and enjoy sharing this passion with my book club members.

Georgia Druliner: Born and raised in Santa Clarita, a College of the Canyons graduate with three associate degrees and now a full-time employee. Engaged just before the pandemic shutdown, the wedding is still up in the air, adopted a 2-year-old German Shepherd named Charlie, a huge animal lover and adventurer. Love hiking in the National Parks and State Parks including Zion, Bryce Canyon, Yosemite, Big Bear, just to name a few. Design is my passion, finding smallest to largest detail in everything is one of my many great traits. Always try to make everyone around me feel important and comfortable with my bubbly personality and smile.

Souhaila Elmoukari: Souhaila is a Student Services Specialist II at the Empowerment Programs; CalWORKs, EOPS/CARE, INSPIRE Scholars, and the Undocumented Resource Center (URC). She provides case management to CalWORKs students, processes GAIN services, and completes DPSS referral documents. She has a strong knowledge of the CalWORKs laws and policies, DPSS contract, and she loves to help and share her own experience with the underrepresented student population, especially those with the language barrier. She is fluent in French and Moroccan.
Souhaila graduated from Los Angeles Valley College where she worked as a case manager and vocational assessor in the CalWORKs/Vocational Assessment Center for 6 years. She earned her bachelor's degree from California State University, Northridge in Sociology with a concentration in Diversity and Inequality. Currently, she is in her second year pursuing her master's degree in counseling and College Student Personnel at California Lutheran University.

Leora Gabay: Leora obtained her bachelor's and master's degrees in Kinesiology and her doctorate degree in Educational Leadership and Policy Studies from CSU Northridge. She has been teaching since 2009 and has been at COC since 2016. She is passionate about exercise, fitness and health and takes pride in being able to teach people how to lead healthier and more active lives. When Leora is not working, you can find her on a hiking trail or spending time with family.

Matt Tapia: I am completing my first year as an Equipment Technician for Athletics at College of the Canyons. Also, I have worked with managing game statistics and scorekeeping for the last 6. Prior to COC (College of the Canyons), I have worked for over 15 years, coaching, and scoring management at the high-school and youth age groups. I worked 19 years in a student

support role for special populations at the Hart School District. I am a College of the Canyons alumni. I attended the first game played in Cougar Stadium when the football program was reestablished in 1998. I live in Green Valley with my wife, an elementary school teacher, and cat, Penelope. We are expecting our first child in August.