

# **Faculty Guide:**

## **Exercise for Prevention and Management of Chronic Illness**

**Sponsored by** The Keck School of Medicine (KSOM) of University of Southern California (USC)  
Primary Care Program (PCP)

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### **Overview:**

The Keck School of Medicine (KSOM) of University of Southern California (USC) Primary Care Program (PCP) Exercise for Prevention and Chronic Illness Management PowerPoint curriculum is designed as a 14-week series of in person, virtual, or hybrid exercise classes for a Spanish/English bilingual and bicultural audience.

The objectives for participants are:

- To learn about the benefits of and recommendations for different types of exercise (strength, balance, flexibility, and cardiovascular) throughout the lifespan
- To understand how exercise can help with prevention and management of common chronic illnesses (like diabetes, high blood pressure, high cholesterol, and fatty liver)
- To engage in strength exercises in a supervised environment and become familiar with accessible, low-impact exercises that can be done with minimal equipment and by participants of varying levels of ability/conditioning

### **Audience:**

- **Learners:**
  - The curriculum is designed for an audience with common chronic illnesses (like diabetes), including those with limited mobility, but can benefit anyone interested in learning about exercise and healthy living. The curriculum is presented in English and Spanish.
- **Teachers:**
  - This curriculum may be taught by a wide variety of people, including healthcare professional trainees, community organization staff, healthcare professionals, and more. This curriculum was developed to be taught by medical students to community participants as a service-learning opportunity for medical students. The curriculum is in English and Spanish and would be most effectively delivered by an individual or group of teachers who feel comfortable speaking both languages.

### **Recommended Format:**

These lectures can be used on their own, as a single class, or in any series or combination. The authors have found the entire 14 sessions are successful when given consecutively once a week to complete a full spectrum of foundational chronic illness management and exercise

knowledge. Each class can be delivered online (i.e. Zoom, Facebook Live), in person, or as a hybrid (both an online and in-person course given simultaneously).

If the full 14 session curriculum is delivered, it is recommended to be given in the following order:

Session	Topic
Session 1	Exercise is Good for You
Session 2	What Types of Exercise Should I do?
Session 3	How Much Should I Exercise?
Session 4	Exercise for Endurance
Session 5	Exercise for Strength
Session 6	Exercise for Flexibility and Balance
Session 7	Exercise and Weight Loss
Session 8	Exercise and Diabetes
Session 9	Exercise and High Blood Pressure
Session 10	Exercise and Heart Disease
Session 11	Exercise and Arthritis
Session 12	Exercise for Older Adults
Session 13	Exercise for Kids and Families
Session 14	Exercise for Stress Relief

Following the lecture content, it is recommended to also teach and lead an exercise routine. If classes are delivered in series, it is recommended to vary the specific exercises selected from one class to the next, but to follow the general format listed below. It is also recommended to provide a handout with diagrams of the exercises to participants so they can recreate the exercise routine on their own.

Exercise Component	Instructions
Warmup	Consider marching in place, side bends, twisting, jumping jacks
Upper extremity (UE) strengthening	<ul style="list-style-type: none"> <li>Select 2 of each (6 exercises total)</li> <li>10-15 repetitions of each exercise</li> <li>Cycle through all 6 exercises twice if time permits</li> </ul>
Lower extremity (LE) strengthening	
Abdominal (Ab) strengthening	
Cooldown, stretching, balance	Stretch the muscle groups you used, hold each stretch for about 30 seconds. Incorporate balance if desired

**Duration:**

Each lecture duration is approximately 10-15 minutes followed by 30 minutes of an exercise routine (optional).

**Materials:**

Materials needed to hold the session in-person (materials can be modified for virtual context) include:

- Laptop
- Projector
- Presentation file
- Extension cord, as needed
- Microphones, portable and wireless are ideal
- Projector screen or wall to display presentation
- Classroom set up (chairs)
- Printed copy of the slides (optional)
- Exercise routine handouts (if including exercise routine)
- Resistance bands or light weights (if including exercise routine)

**Optional Supplemental Curriculum Add-On:**

The authors have enhanced each exercise demonstration using exercise bands and/or food cans to serve as weights, although exercises can be done with bodyweight only if bands or weights are not available. Yoga mats may be useful if including exercises that are done on the floor. The exercise class is preceded by an English/Spanish nutrition and cooking class. Additional opportunities to add on healthy lifestyle curriculum (i.e. cooking classes, nutrition classes, etc.) prior to the exercise presentation are encouraged.

**Acknowledgements:**

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**Related Publications:**

- Edge, I., Greenberg, I., Reilly, J. M., & Silva, W. (2022). Virtual, bilingual English-Spanish community nutrition and exercise classes: Barriers and opportunities. *Health Education Journal*, 81(6), 705–717. <https://doi.org/10.1177/00178969221110104>
- Reilly JM, Edge I, Ayala-Rivera B, Greenberg I, Villanueva M, Blanco P. *Healthy eating and cooking for diabetes and other chronic illnesses: Alimentacion y cocina saludables para la diabetes y otras enfermedades crónicas*. 1st ed. <https://tinyurl.com/28uk76nm>: Amazon KDP; 2022.
- Additional manuscripts in process