

# Risk Continuum

## Abstract

A whole-class kinesthetic demonstration of what it means to be in a “risk group” for developing heart disease based on family history and genetics.

## Learning Objectives

- People can be assigned to a risk group for developing heart, and other diseases based on family history/genetics.
- Lifestyle choices can positively or negatively influence the risk of developing heart disease.
- A higher risk means a greater chance of developing heart disease, not an inevitability of developing it.
- Though a lower risk means there is a reduced chance, it is still possible for members of this risk group to develop heart disease.

## Estimated time

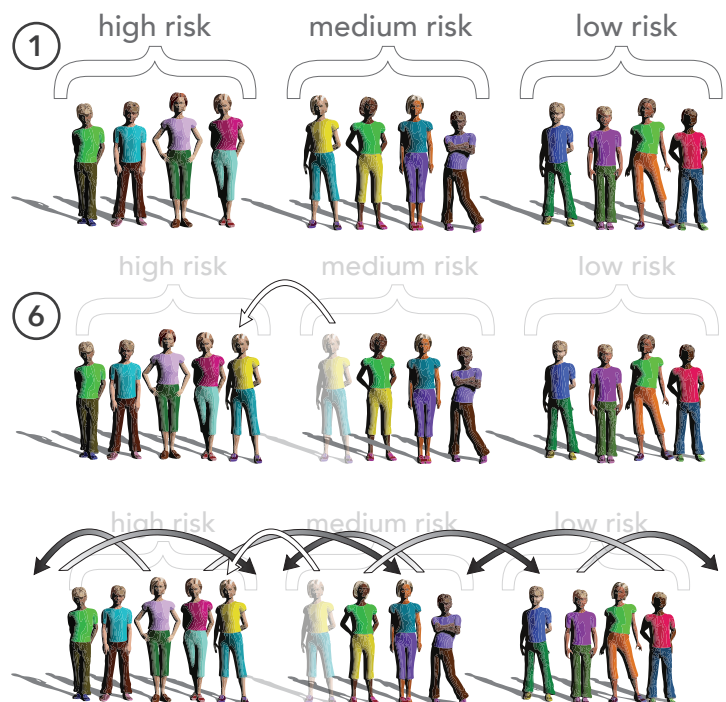
- 15 minutes

## Materials

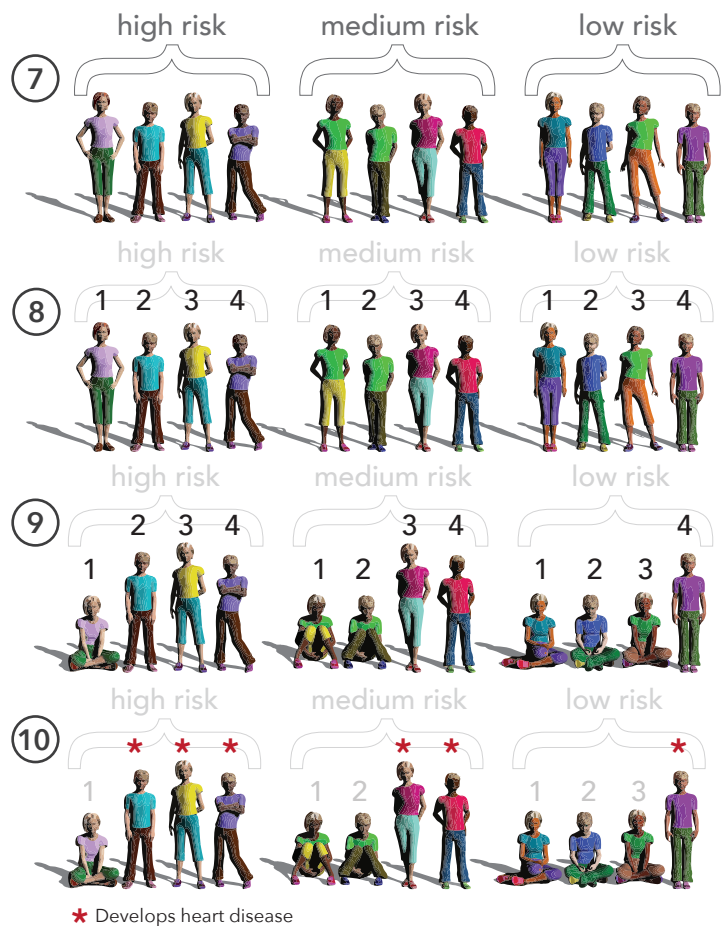
- Behavior cards: one per person. Try to get an even balance of each type.

## Instructions

1. Have students stand in a single row, side by side, and facing the same direction.
2. Mark off two spots so that the students are roughly divided into thirds.
3. Explain that the students represent a continuum. Students on the left have the greatest genetic risk for developing heart disease. Those on the right have the lowest genetic risk. The “thirds” are broader groupings of high, medium, and low risk.
4. Explain that people within each risk group have a certain probability of developing heart disease, based on their family history and genetics. Lifestyle choices involving diet, exercise, and smoking can influence this risk.



5. Starting on the left, have each student choose a Behavior card (without looking).
6. Move each student according to their Behavior card:  
 Healthy – Move one group to the right  
 Neutral – Remain where you are  
 Negative – Move one group to the left
7. Have students reflect on how their behaviors have affected their risk.
8. Within each risk group, the students should count off 1 to 4.
9. Ask the following students to sit:
  - a. High risk – students who counted 1
  - b. Medium risk – 1 & 2
  - c. Low risk – 1, 2 & 3
10. Those who are still standing represent the people who will develop the disease.



## Discuss

- People in all risk groups develop heart disease with the largest percentage being from the “high” risk group.
- Not all people in the high risk group develop heart disease.
- Making positive or neutral lifestyle choices can influence your risk enough to prevent developing heart disease. (Ask students for which this was true to raise their hands).
- Sometimes, people who make positive or neutral lifestyle choices still develop heart disease (Ask students for which this was true to raise their hands).
- Some people who make negative lifestyle choices do not develop heart disease, even though their risk is increased.

## Adaptations

You can create a risk continuum for other diseases that are influenced by both genes and the environment, such as diabetes, cancer, and more. Fill in the Behavior cards to reflect the relevant risky, neutral, and protective behaviors.

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# NEGATIVE LIFESTYLE



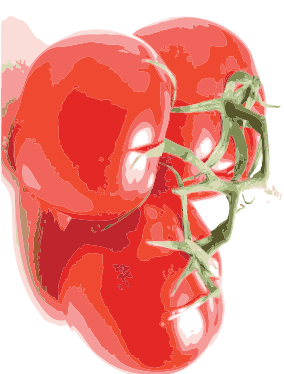
smoking

# NEUTRAL LIFESTYLE

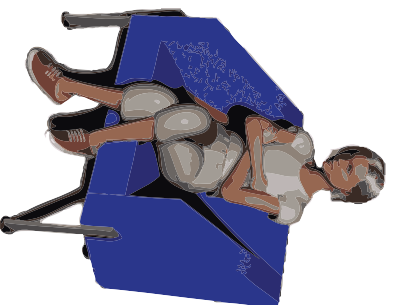


balanced diet

# POSITIVE LIFESTYLE



healthy diet



inactivity



moderate activity



very active



**ESTILO DE VIDA  
NEGATIVO**



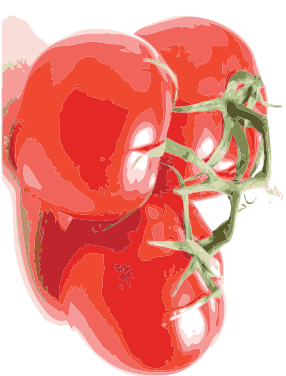
fumador

**ESTILO DE VIDA  
NEUTRAL**

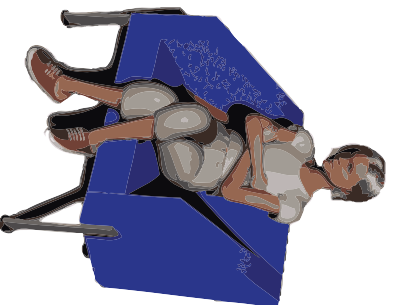


Dieta Balanceada

**ESTILO DE VIDA  
POSITIVO**



Dieta Saludable



Inactividad Negativo



Actividad Moderada

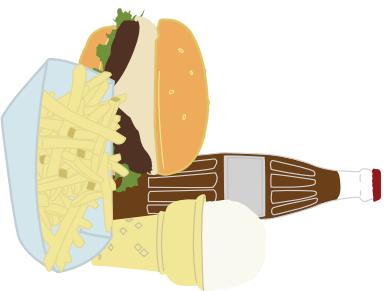


Mucha Actividad



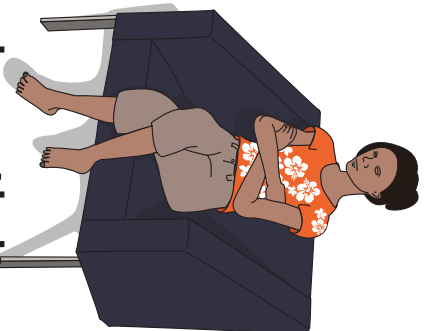
# NEGATIVE LIFESTYLE

To'onga Mo'ui 'Ikai ke Sai



## unhealthy diet

Me'akai 'Ikai Fakatupu Mo'ui Lelei

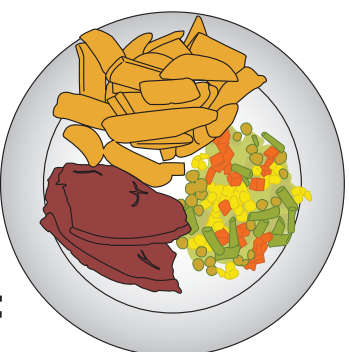


## inactivity

'Ikai Longomo'ui

# NEUTRAL LIFESTYLE

To'onga Mo'ui Saisai



## average diet

Me'akai Fakatupu Mo'ui Lelei



## moderate activity

Longomo'ui

# POSITIVE LIFESTYLE

To'onga Mo'ui Sai 'aupito



## healthy diet

Me'akai Fakatupu Mo'ui lelei 'aupito



## very active

Longomo'ui 'Aupito