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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Risk Continuum — Teacher Guide

Behavior Cards:

Cut along the dotted line to make 3 individual cards.

Very active:
- Healthy diet
- Balanced diet
- Smoking

Moderate activity:
- Healthy diet
- Balanced diet

Inactivity:
- Balanced diet
- Smoking
Corte a lo largo de las líneas punteadas para hacer 3 tarjetas individuales.

**Estilo de Vida Positivo**
- Mucha Actividad
- Dieta Saludable
- Túmulo

**Estilo de Vida Neutro**
- Actividad Moderada
- Dieta Balanceada
- Mucha Actividad

**Estilo de Vida Negativo**
- Inactividad Negativa
- Dieta Desbalanceada
- Fumador
Very active
Healthy diet
Positive lifestyle

Moderate activity
Average diet
Neutral lifestyle

Inactivity
Unhealthy diet
Negative lifestyle