

## Phenomenon: A Walk Around Bozeman

### Guiding Question:

How did Mr. Andersen use interacting body **systems** to complete a walk around Bozeman?



Mr. Andersen used his smartwatch to gather information while going for a walk in Bozeman, Montana. The watch recorded the following information continuously throughout the walk.

Pace (minutes/mile)	Heart rate (Beats/minute)
Elevation (feet)	Time (minutes)
Blood Oxygen Saturation (%)	GPS Location

You will be using the evidence collected by the watch and your understanding of body systems to explain how Mr. Andersen is a system of interacting subsystems composed of groups of cells.

<b>Phenomenon: A Walk Around Bozeman</b>	<b>1</b>
<b>Evidence 1: Map of Walk</b>	<b>3</b>
<b>Evidence 2: Elevation of Walk</b>	<b>3</b>
<b>Evidence 3: Heart Rate During Walk</b>	<b>4</b>
<b>Evidence 4: Oxygen Saturation During Walk</b>	<b>4</b>
<b>Evidence 5: Human Body Systems</b>	<b>5</b>
<b>Evidence 6: Organization of Body Systems</b>	<b>5</b>

Evidence 1: Map of Walk

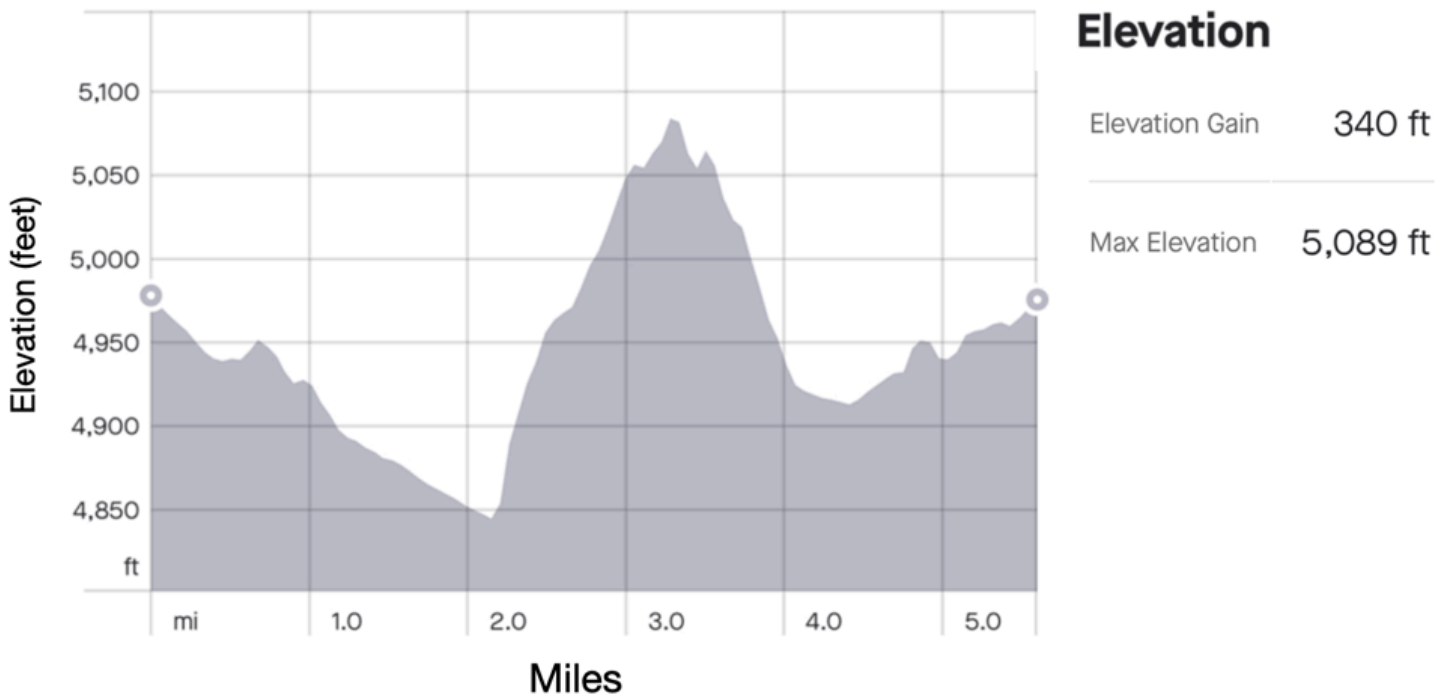


**Afternoon Walk**

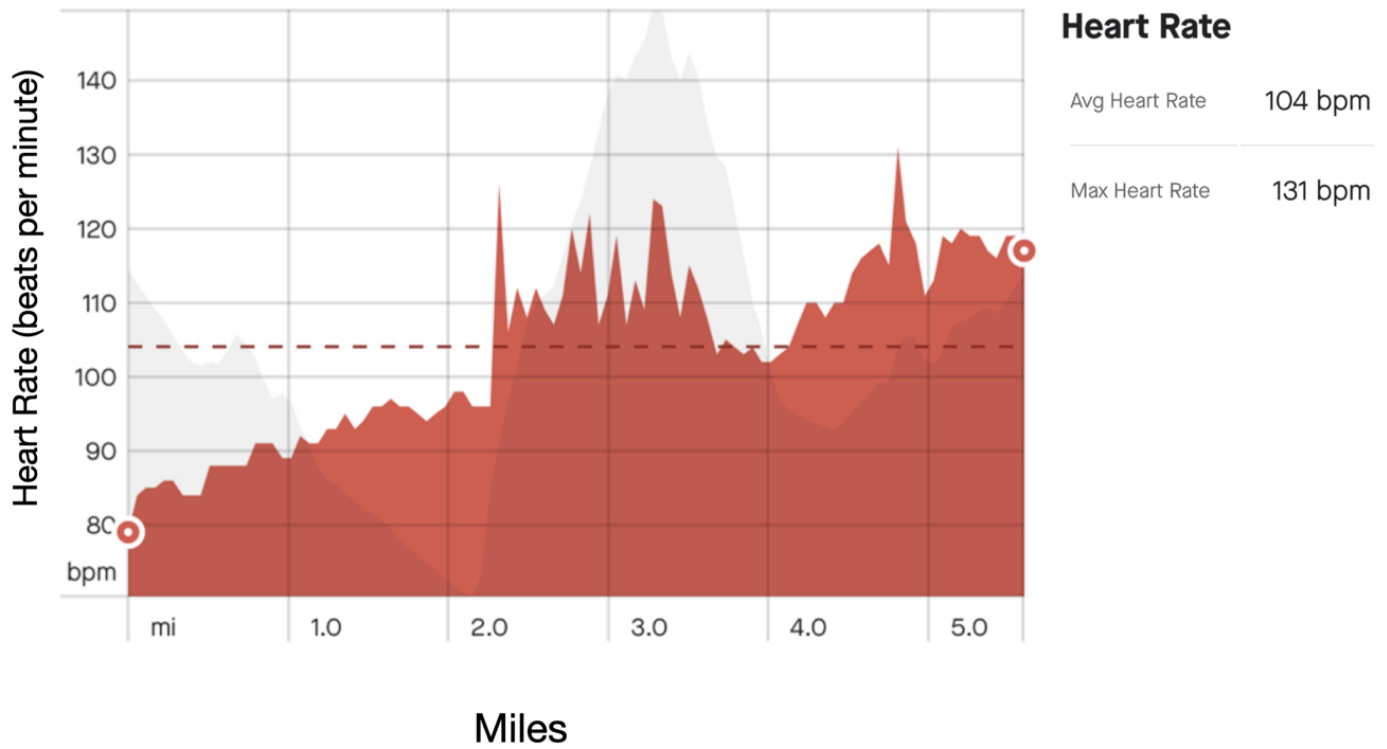


**Paul Andersen**  
Today at 1:00 PM

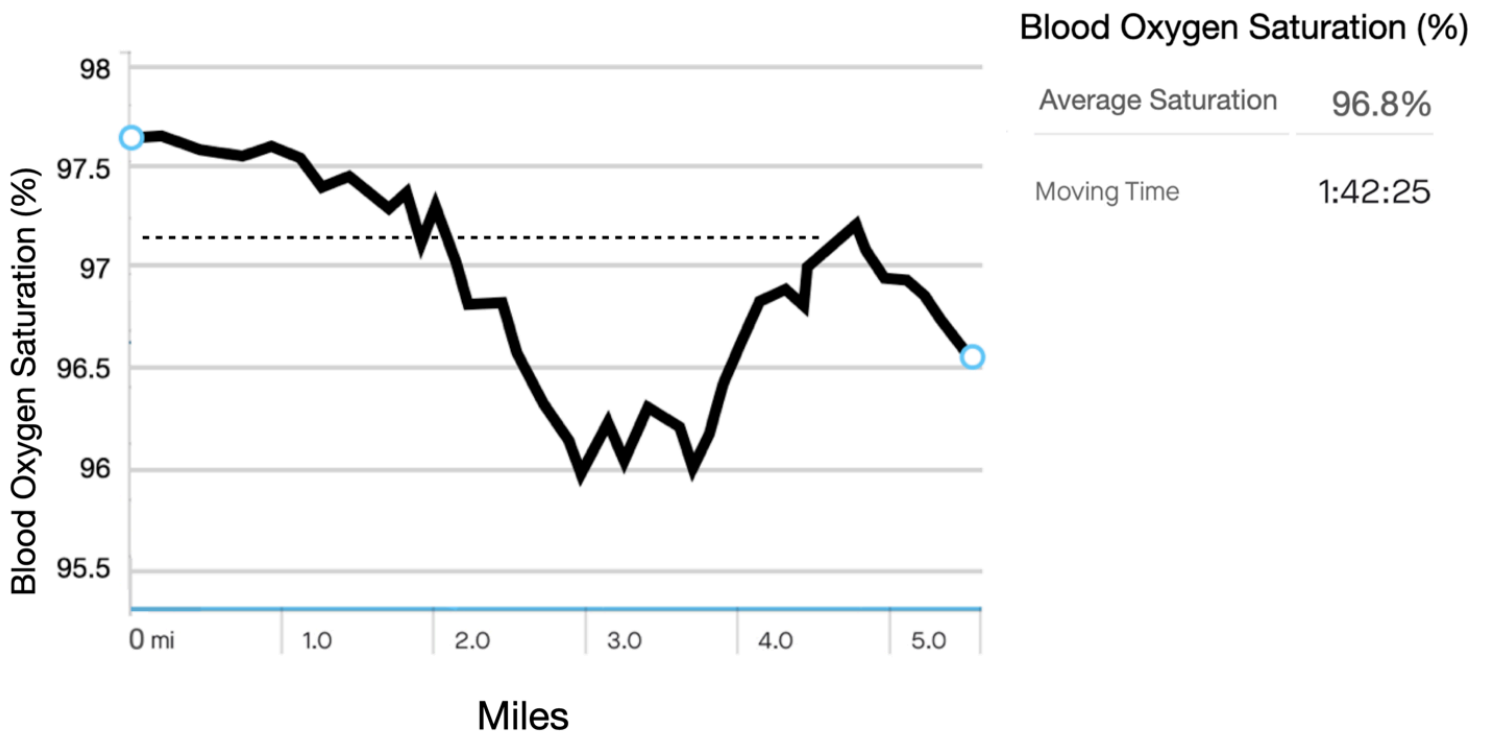
Evidence 2: Elevation of Walk



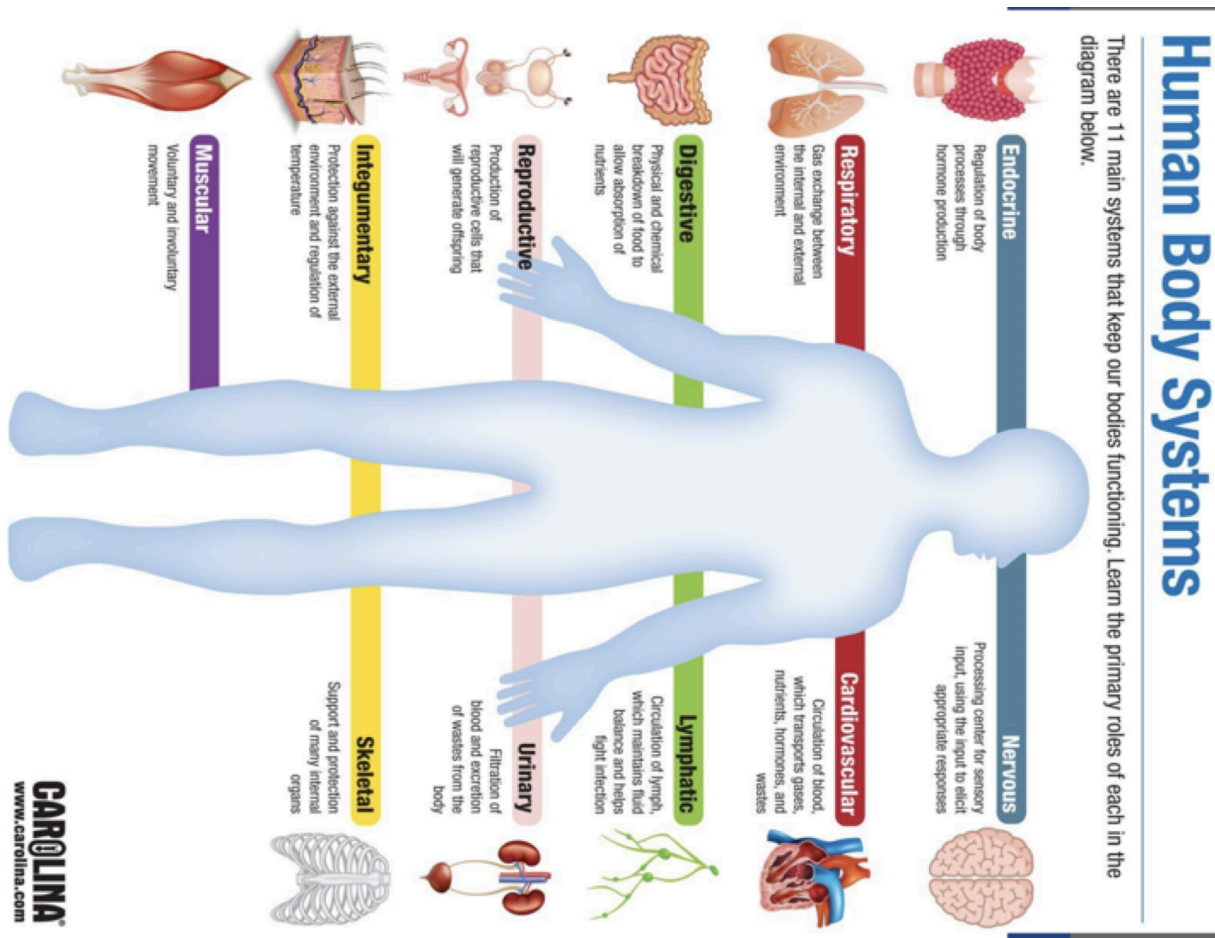
### Evidence 3: Heart Rate During Walk



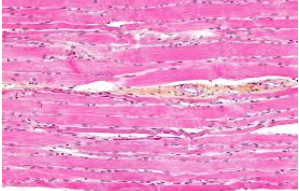
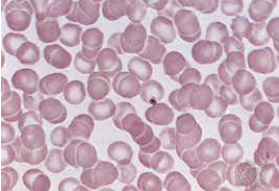
### Evidence 4: Oxygen Saturation During Walk



## Evidence 5: Human Body Systems



## Evidence 6: Organization of Body Systems

Organism	Mr. Andersen		
Organ <b>system</b>	Muscular system	Circulatory system	Respiratory system
Organ	Calf muscle	Blood vessels	Lung
Tissue	Muscle tissue	Blood tissue	Lung tissue
Cell	Muscle cell 	Heart cell 	Lung cell 