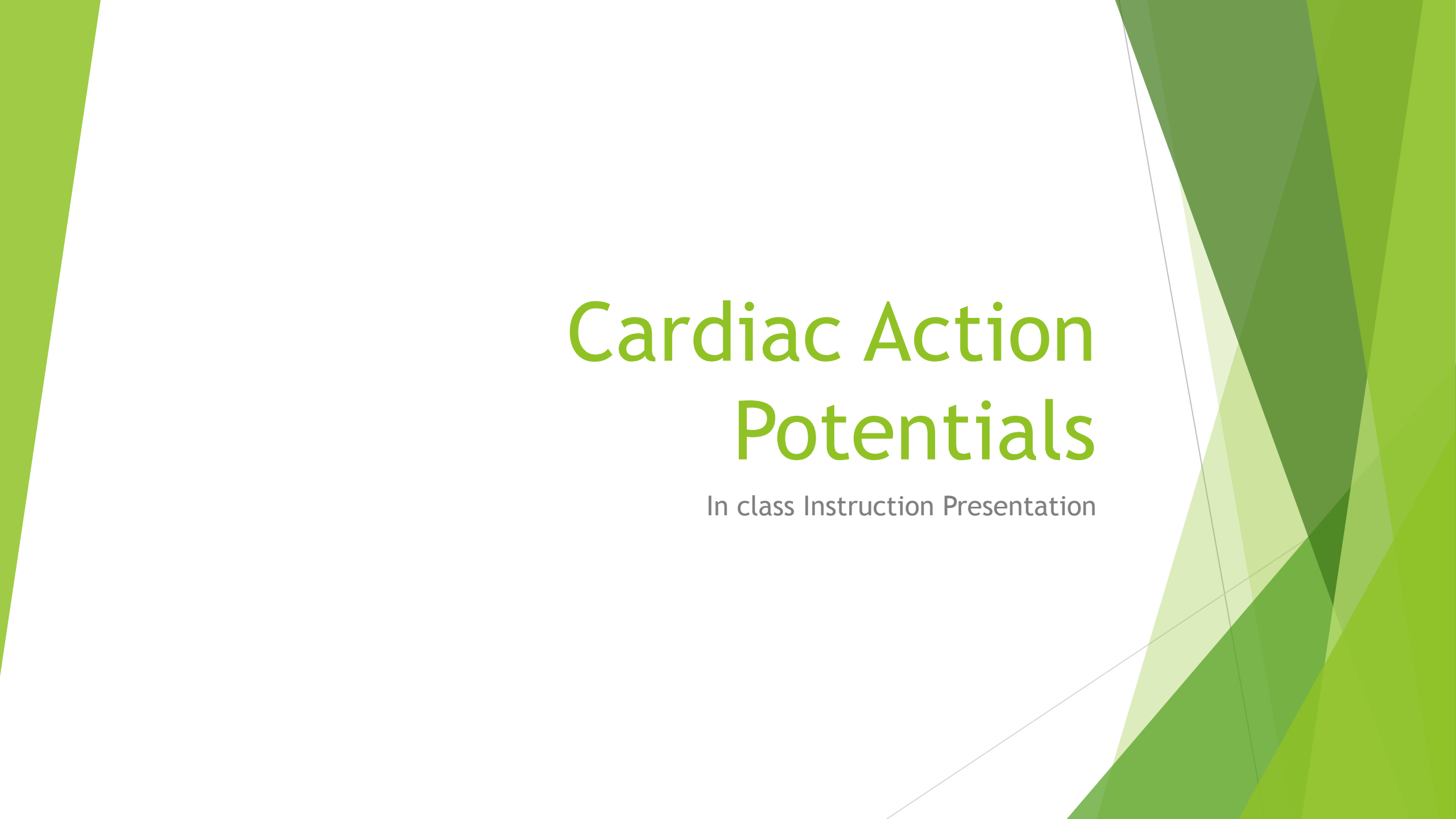


The background features abstract, overlapping green geometric shapes, primarily triangles and polygons, in various shades of green, creating a modern and dynamic look.

Cardiac Action Potentials

In class Instruction Presentation

What happens to the heart during an action potential?

- ▶ What are action potentials based on?
- ▶ What causes a cardiac action potential?
- ▶ During an action potential, what happens to the cardiac cells?
- ▶ What happens to the heart during an action potential?

What are the Types of Cardiac Action Potentials?

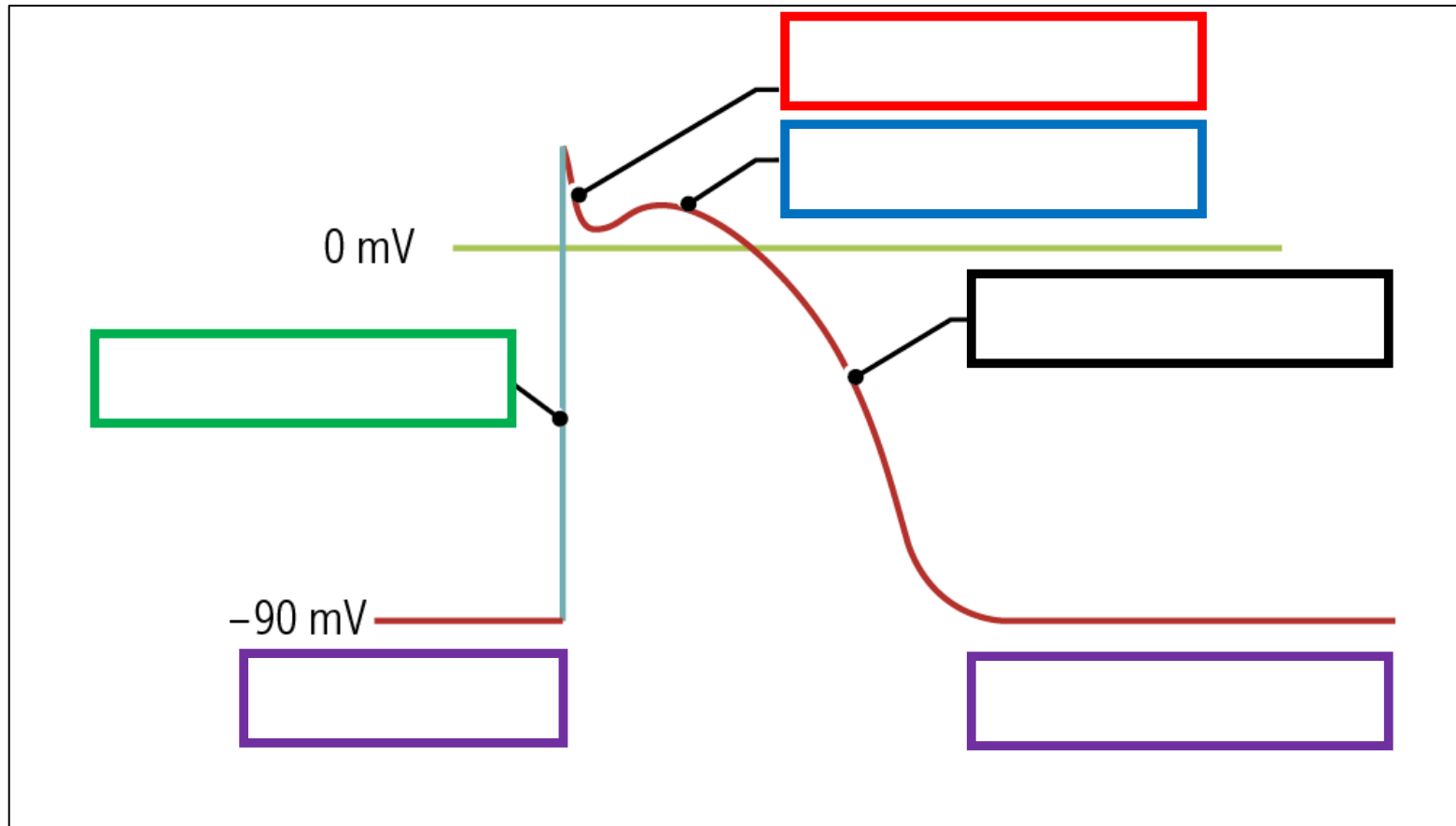
Group 1

- ▶ What Type?
- ▶ What cells each type arises from?
- ▶ What is the purpose?
- ▶ Fast or Slow?

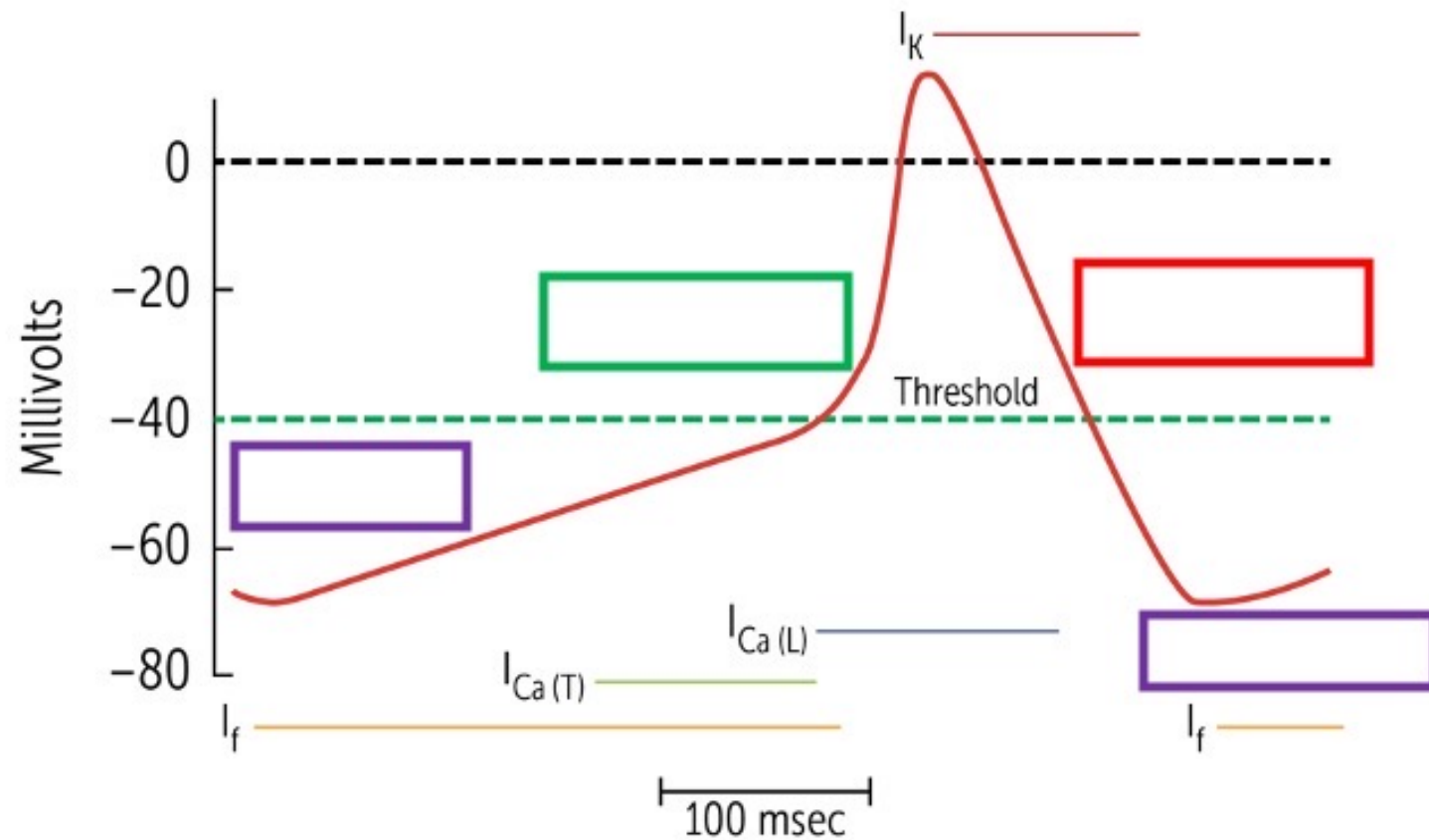
Group 2

- ▶ What Type?
- ▶ What cells they type arises from?
- ▶ What is the purpose?
- ▶ Fast or Slow?

Nonpacemaker Phases



Pacemaker Phases



Importance of Action Potential Refractory Periods

- What are refractory periods?
- What is one fast voltage-gated sodium state?
- What is a 2nd fast voltage-gated sodium state?
- What is the 3rd fast voltage-gated sodium state?
- On each card describe what occurs in each state.

Pacemaker Action Potential Patient Case

- 64 year old woman
- Relatively healthy, comes in on her own
- Complaining of palpitations & dizziness
- Normal blood pressure, temperature, oxygen saturation & respiratory rate
- **Heart Rate between 130 & 170 bpm**
- EKG shows irregular, narrow complex rhythm
- No identifiable P waves

