

# ECG Electrode Placement for Female Patients

This guide illustrates the standard electrode placement for a 12-lead electrocardiogram (ECG) on a female patient. Accurate placement is crucial for obtaining reliable diagnostic information. While the fundamental anatomical landmarks are consistent across genders, proper placement for female patients often requires careful consideration of breast tissue to ensure optimal contact and signal quality.

---

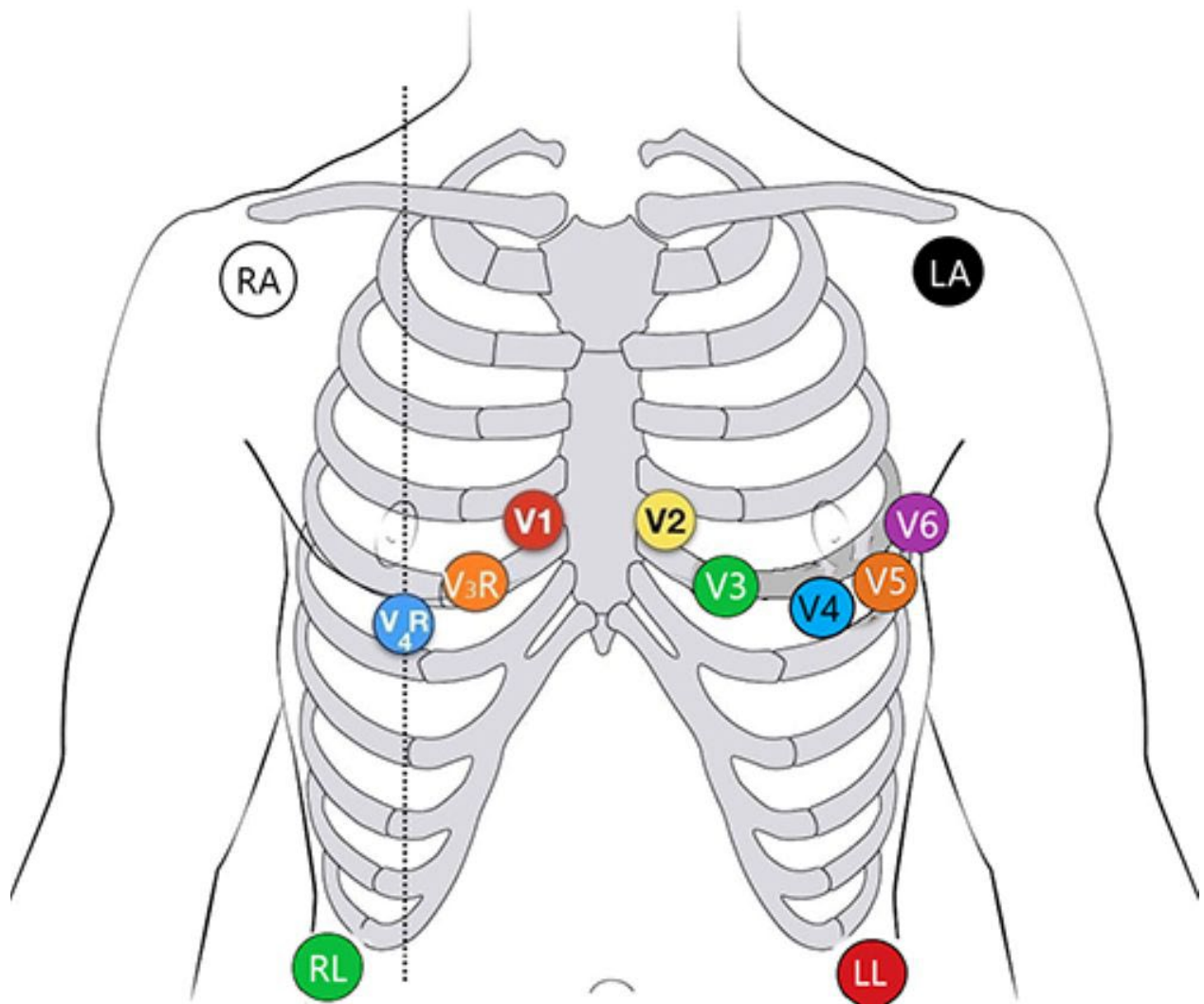
## Important Considerations for Female Patients:

- **Breast Tissue Displacement:** Gently lift or displace breast tissue as needed to ensure direct skin contact for V3, V4, V5, and V6 electrodes. Electrodes should never be placed directly on breast tissue if it can be avoided, as this can lead to artifact and poor signal quality.
  - **Submammary Fold:** The inframammary (submammary) fold, the crease beneath the breast, can often serve as a helpful landmark for the fifth intercostal space for leads V4, V5, and V6, as these leads are typically placed at or around this level.
  - **Patient Comfort and Privacy:** Always explain the procedure to the patient and ensure their comfort and privacy throughout the process.
  - **Skin Preparation:** Ensure the skin is clean, dry, and free of oils or lotions for optimal electrode adhesion and signal transmission. Shaving hair from the electrode placement sites may be necessary in some cases.
- 

## Electrode Positions:

### Limb Leads:

- **RA (Right Arm):** Placed anywhere on the right arm, ideally on the deltoid region or just below the clavicle.
  - **LA (Left Arm):** Placed anywhere on the left arm, ideally on the deltoid region or just below the clavicle.
  - **RL (Right Leg):** Placed anywhere on the right leg, ideally on the calf or thigh. This is typically the ground electrode.
  - **LL (Left Leg):** Placed anywhere on the left leg, ideally on the calf or thigh.
-



**Precordial (Chest) Leads:**

- V1 – 4<sup>th</sup> intercostal space to the right of the sternum
- V2 – 4<sup>th</sup> intercostal space to the left of the sternum
- V3 – Midway between V2 and V4 (left side)
- V4 – 5<sup>th</sup> intercostal space at the midclavicular line (nipple line) left side
- V5 – 5<sup>th</sup> intercostal space, anterior axillary line
- V6 – 5<sup>th</sup> intercostal space, mid-axillary line

**Note:** On people who can't keep their legs and arms still:

- Put leg leads on lower abdomen near right & left iliac crest.
- Put arm leads 1-2 inches below the right & left clavicle.