



Emergency Medical Services Department 12-Lead ECG Acquisition

The following protocols prescribe acquisition of a 12-lead ECG at the EMT level:

I. RED

- a. Cardiac chest pain (Red 2)
- b. Chest pain uncertain etiology (Red 6)
- c. Adult Post resuscitation Care (Red 16)
- d. Tachycardia #1 (Red 17)
- e. Bradycardia #1 (Red 20)
- f. Cardiogenic Shock (Red 22)
- g. Syncope (Red 23)

II. GREEN

- a. Chest Trauma (Green 10)

III. GOLD

- a. Stroke #3 (Gold 12)
- b. Abdominal Pain (Gold 18)
- c. Nausea & vomiting (Gold 20)

IV. YELLOW

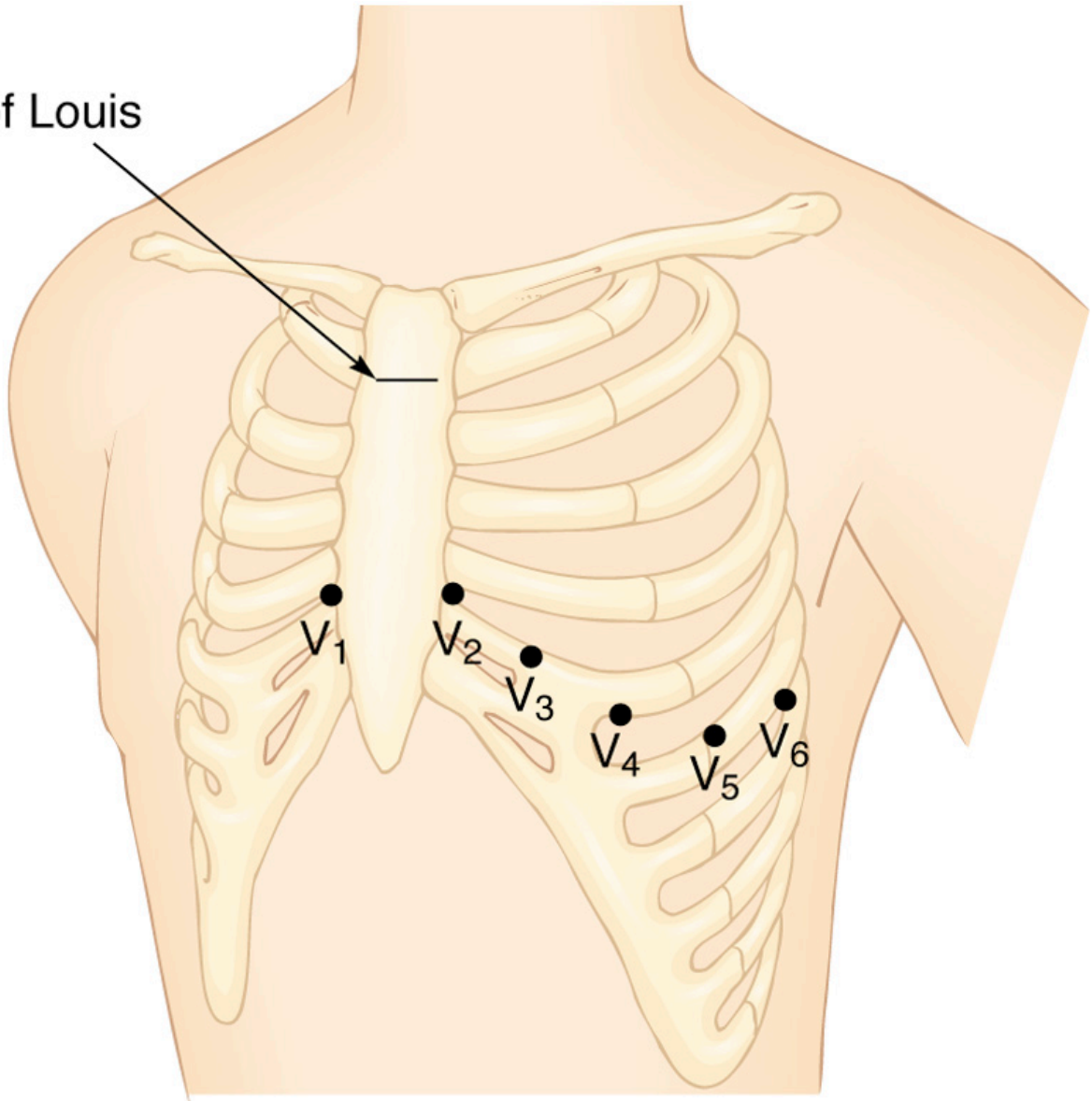
- a. Cyanide/CO Exposure (Yellow 8)

Assessment Standards: 12-Lead ECG Acquisition

12-Lead Placement

12-Lead placement should be done **by manufacturer recommendation of the device being used**. Limb leads should be placed on the limbs after prepping the skin. Please consult the user manual of your cardiac monitor prior to acquisition of the 12-Lead ECG for additional placement guidelines.

Angle of Louis

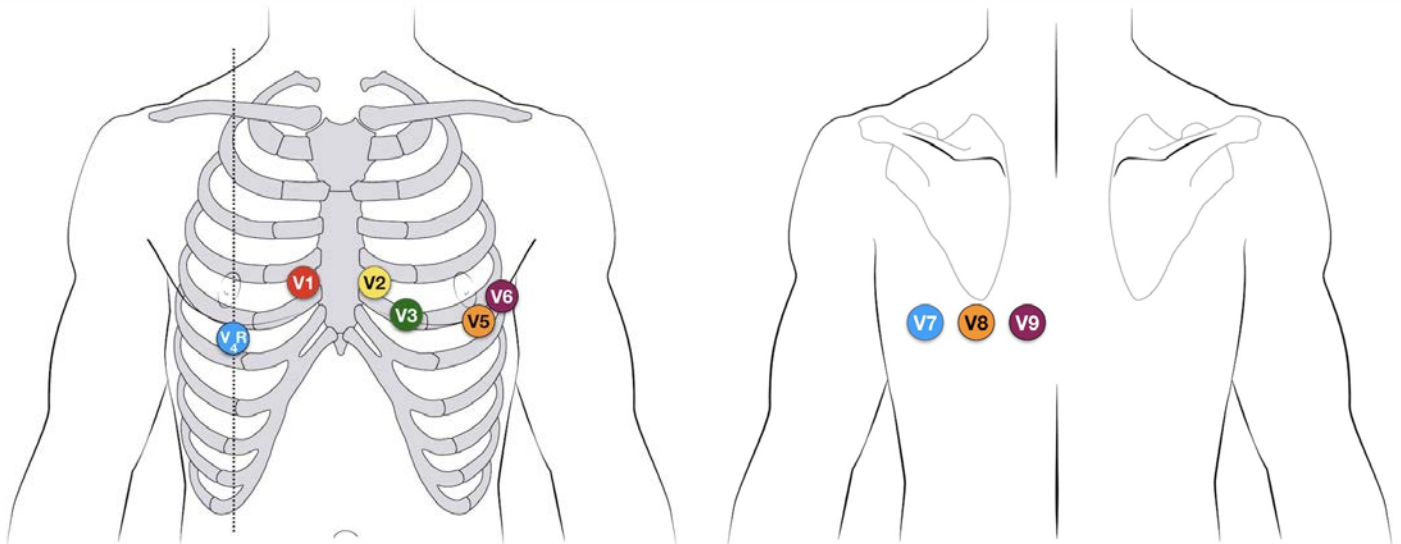
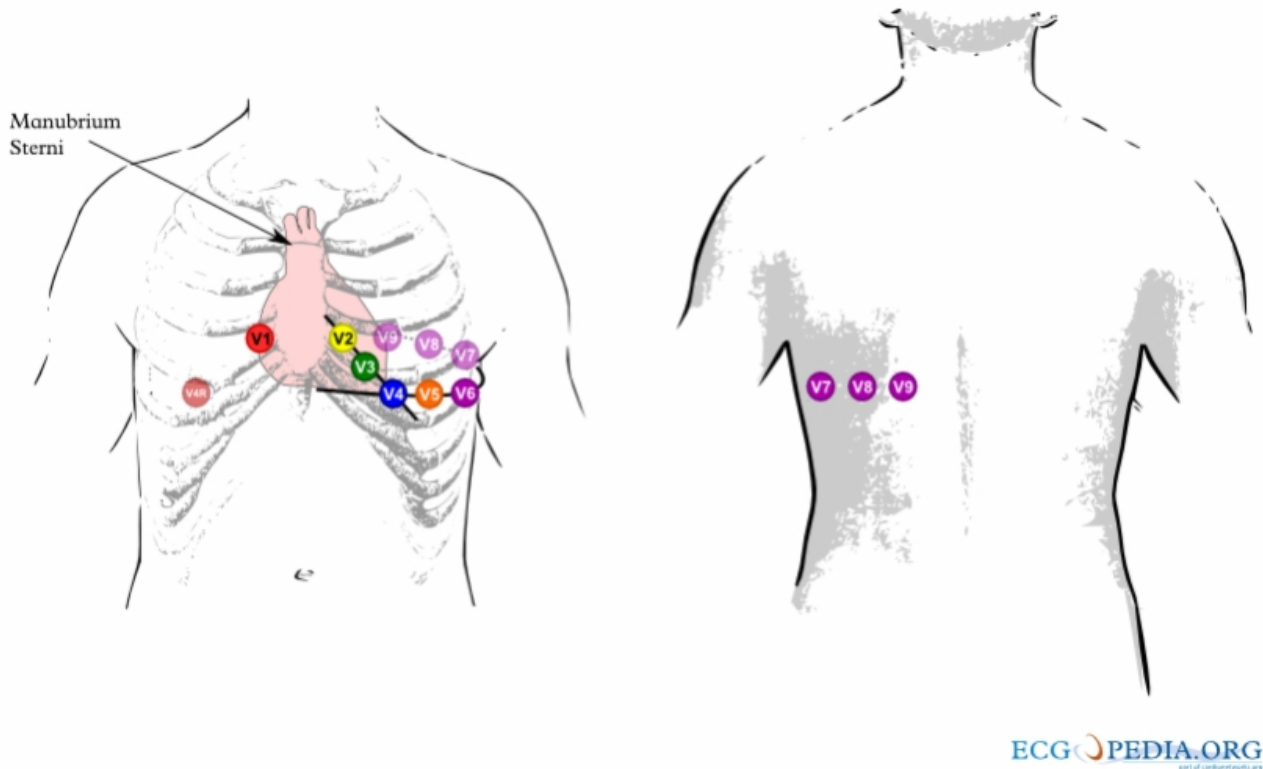


Chest Lead Placement

Assessment Standards: 12-Lead ECG Acquisition

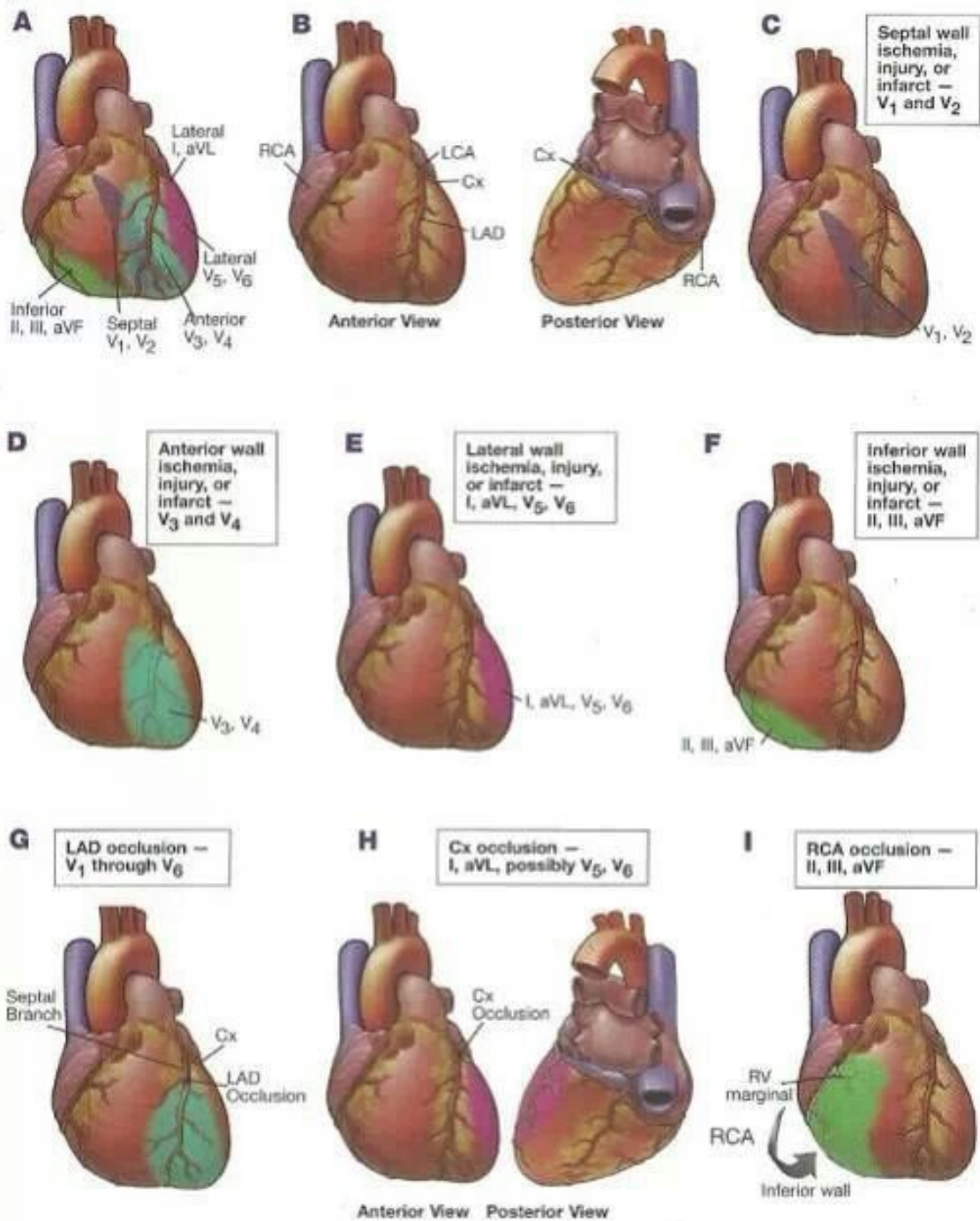
15-Lead ECG Placement*

The 15 Lead ECG requires the provider to first collect a standard 12-Lead ECG, then make three (3) modifications. The modifications are: V4 is moved to V4R, V5 is moved to V8, and V6 is moved to position V9. On the printout V4, V5, and V6 are changed to V4R, V8, and V9 or a note is added to the patient care report.



***Note: Acquisition of a 15-lead ECG requires training outside the scope of this course and is not a required component of this Maine EMS course. However, acquisition of 15-lead ECGs may be a service-level option and is only included here as a training aid for services wishing to teach the 15-lead acquisition skill.**

Assessment Standards: 12-Lead ECG Acquisition



I lateral	aVR	V ₁ septal	V ₄ anterior
II inferior	aVL lateral	V ₂ septal	V ₅ lateral
III inferior	aVF inferior	V ₃ anterior	V ₆ lateral



Localizing ischemia, injury, or infarct using the 12-lead ECG: relationship to coronary artery anatomy.

Assessment Standards: 12-Lead ECG Acquisition

Credits

Maine EMS gratefully acknowledges the EMS programs of the Maine Community College System, for their collaboration and for allowing use of their program materials in the development of these EMT Scope of Practice Skills Practicum written lab and skills sheet materials: Southern Maine, Kennebec Valley, Eastern Maine, and Northern Maine Community Colleges.