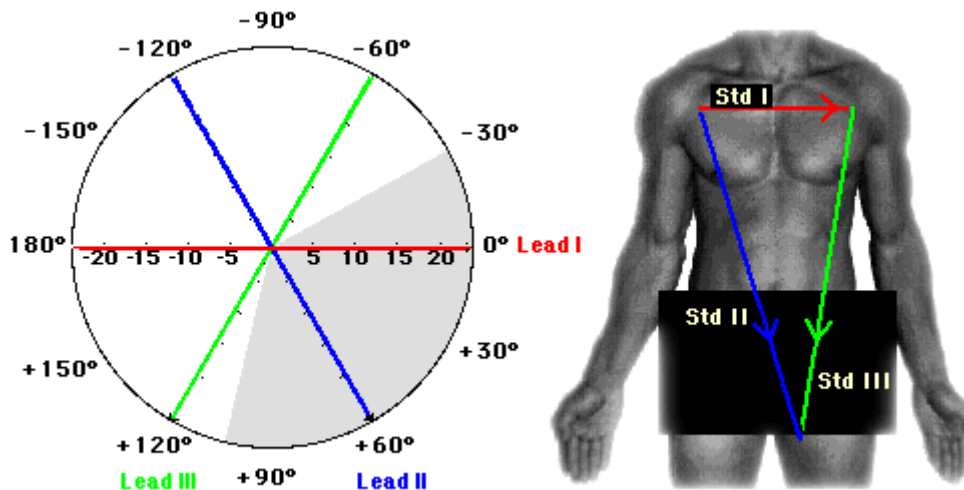


# The Mean Electrical Axis

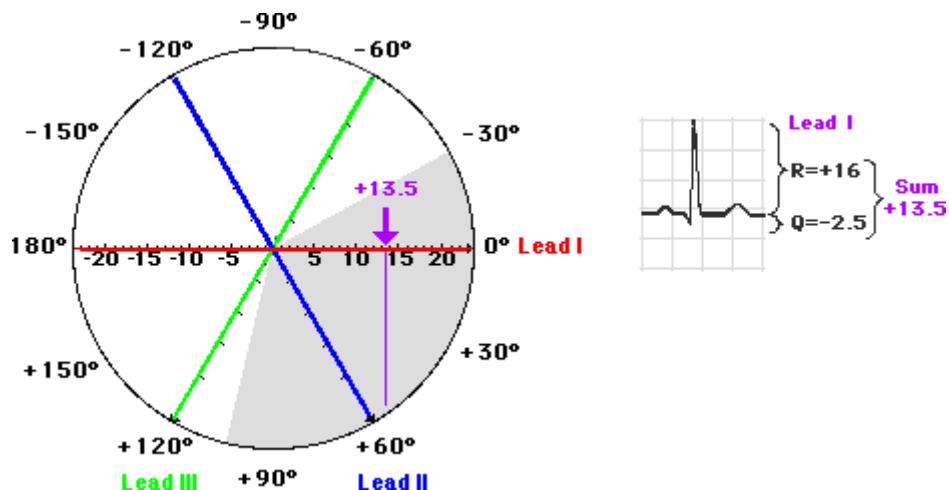
The QRS mean electrical axis can be calculated by plotting the vectors of two of the three standard leads (lead I, lead II and lead III) on a grid as shown on the left. The grid is simply a rearrangement of Einthoven's triangle as shown in the diagram below.



To calculate the mean electrical axis of the QRS complex in this example, standard leads I and III were used but any combination of two of the three could have been used. The vectorial sum of the deflections of the QRS complex for each lead is calculated in millimeters. In this example the Q wave is -2.5 mm deep and the R wave is +16 mm high to give a sum of +13.5 mm for lead I

## Step One:

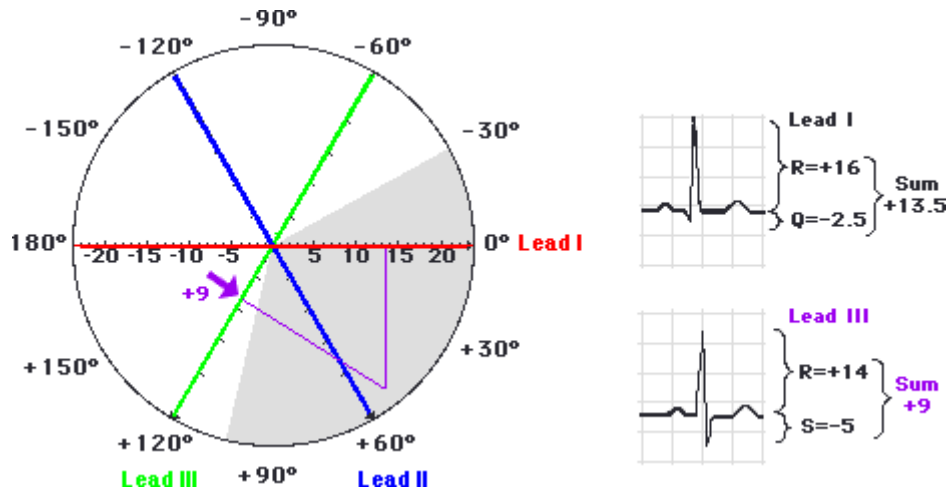
The point corresponding to this sum is then located on lead I (the positive direction being towards the arrow of each lead) and a perpendicular is dropped from **lead I**.



---

### Step Two:

The same is done for **lead III**.



please scroll down to see more

---

### Step Three:

A line is then drawn from the center of the grid through the point of intersection of the two perpendicular lines to obtain the mean electrical axis. In this case, the mean electrical axis of the QRS complex is **58 degrees** which is within the normal range.

