

SENSITIVITY & SPECIFICITY FOR LVH CRITERIA



Ask Mish

Table: The sensitivity and specificity of various electrocardiographic criteria for left ventricular hypertrophy predicting increased left ventricular mass index on echocardiogram

Criterion	Sensitivity	Specificity
Sokolow-Lyon	31%	86%
Cornell	23%	96%
Romhiltz-Estes	27%	84%
12 Lead sum	25%	80%
12 Lead-QRS Product	30%	86%
QRS Duration	3%	94%
Left ventricular strain	21%	62%

- There are many EKG criteria for LVH. Most of them have low sensitivity and high specificity, this being the case with all EKG criteria for hypertrophy and enlargement.

	Sensitivity ↑	Specificity ↑
QRS	QRS ↑	QRS ↓
age	< 40	> 40
gender	male	female
		obesity
		COPD
		effusions*

*cardiac & pleural effusions

- All factors that produce an increase in QRS will increase sensitivity and decrease specificity of these criteria.
- All factors that produce a decrease in QRS will increase specificity and decrease sensitivity of these criteria.