

## Lead selection

For the recording analysis system

~~System~~ To be practical, the number of leads must be limited. In this case ~~the~~ a single lead is considered sufficient however this lead must contain as much information as possible. All complexes should be distinct, of reasonable amplitude, ST variations should be ~~a~~ maximum and noise, ~~should~~ especially muscle artefacts, should be a minimum. Inconveniences including mechanical disturbance should be a minimum. The lead which most successfully meets this criteria is very nearly that of the old 'T' lead of Wilson. One electrode is placed midline just above the manubriosternal junction



and the second in the anterior axillary  
over the sixth rib. This combines element  
<sup>L II +</sup>  
of a precordial L5. ~~L II~~ P, QRS +  
T waves are near maximum & normally

predominantly upright. Approx. 85% of  
total S.T. depressions ~~or~~ appearing in  
any lead will appear here. Muscle

noise from portions of the pectoralis ~~are~~  
~~may~~ <sup>significantly</sup> appear but usually only under near  
maximal efforts involving this muscle

The lateral lead is subject to some mechanical  
dislocation but only good electrode design &  
application ~~minimize~~ make this of no consequence.

— Stress electrodes & applications —  
Show records of various activities



segment used here. Each ~~QRS~~<sup>Complex</sup> is sampled just  
~~prior to the Q wave~~ <sup>isoelectric</sup> Back segment is sampled just  
 prior to the QRS complex, a relatively easy task here,  
 since a separate <sup>QRS</sup> tape trigger channel is used  
 which provides a trigger in advance of the ~~same~~  
 complex. The level is sampled and held  
 in a memory circuit until the j (junction)  
 point is detected by junction of S + ST segment,  
 if the QRS is of normal configuration  
 is detected and the level sampled. This level  
 is compared to the isoelectric level and  
 an <sup>sliding</sup> average of approx 10 secs. is  
 written graphically. The level may be pos., elevation  
 or neg., depression, in a normal range  
 of  $\pm 5$  mm. In addition ~~the~~ a delay part



beyond the j-point may be introduced such that  
mid~~s~~ - S.T. segments may be sampled. To  
allow options <sup>other</sup> further sampling may be  
accomplished. A manual adjustment allows  
the ~~see~~ second sample to be taken at the  
peak of the T wave <sup>variations or</sup> such that <sup>inversions</sup>  
~~or~~ may be recorded. ~~The possible are~~

The possible are two samples of the S-T  
segment which ~~would go~~ from which slope could  
be obtained. <sup>TP</sup> Limits for ~~auto~~ may be set for  
such that exceeding a given quantity will  
either actuate a warning or other circuitry such  
as a direct writer of the EKG.