

Dear Bruce

Apropos the recording of the ear densitogram: This is the group that demonstrated that the ear pulse bears a constant time relationship to the carotid (neck) aa. pulse and that is their real contribution. They were well beyond their elementary ^{technical} considerations described in the article. They did not show any active recordings & for good reason. I was after treadmill tracings & probably had it solved when I called a halt to the program. I had automatic analysis well in hand (i.e. a good signal). In short they have nothing to offer technically.

This procedure is used by some people in research. It may have a place in stress testing which is where I wanted it for an accessory.

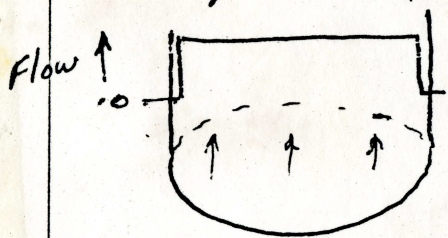
In my opinion it is not worth any effort ^{for recording} except the sale of a recorder & provision of a reprint to anyone interested in Holter monitoring. It is worth about \$5-7.5 K. ^{in addition to what you have in it} development money as a gamble for an accessory to stress ^{tests} which would include the "computer." If we had a lab etc but we don't ~~so~~ ^{and} there are far more pressing needs which is why I dropped it. If at some quiet ^(slack) time we can take a look.

Apropos the Light article on Doppler flow indication - This is simply the latest in a series of velocity indicators which began

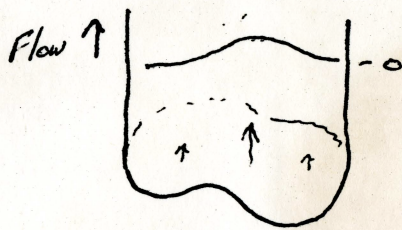
in the '50's. Remember Dimond (?) at La Jolla?

They all have the same problem illustrated below.

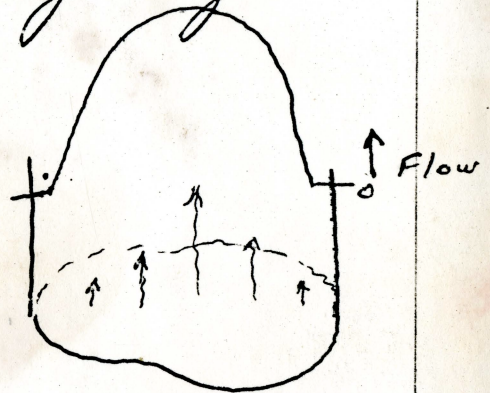
If the vessel were 1. rigid, 2. of known size & shape and 3. if the flow profile were fixed and known then they could indeed give invaluable flow information. As it is nobody knows what ^a velocity really means. In practice the



Ideal



Diastole



Systole

In practice

size & shape of vessel is unknown, it changes from systole to diastole and the same is true of the flow profile i.e. 3 vs 1 unknown and 1 equation.

ARC and many others have worked on a wall detector and ^{moving} gated ^{doppler} pulses that would progressively sample ~~or~~ one dimension of the vessel and measure the profile but this is tough and after 5-7 yrs. work they don't like the subject mentioned. Skip this one & get Bill S. off production ASAP & try (!) to aim him in some of these directions - Bill