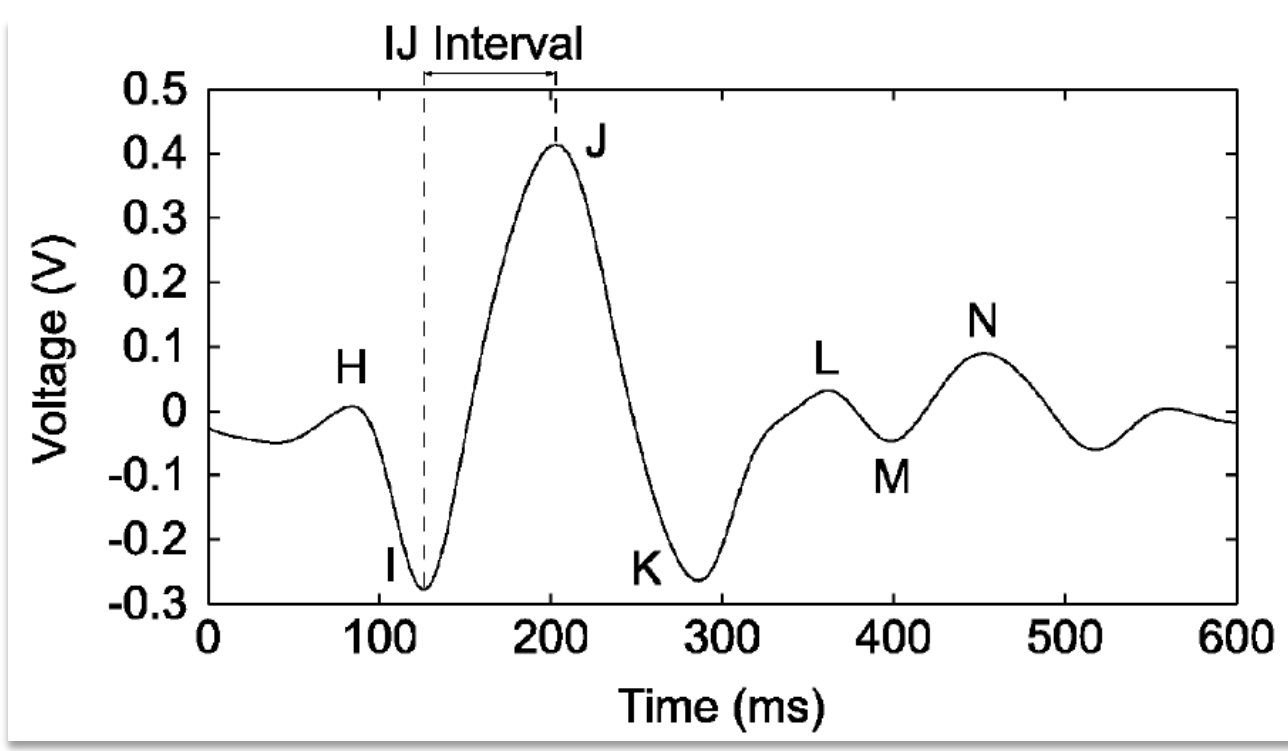


# Cardiovascular Health Assessment using a Common Device

## CHALLENGE

### An easy-to-use and affordable technology

Makes it quickly to assess physiological parameters related to **cardiac and vascular health** of a subject using force sensors in a common electronic device.



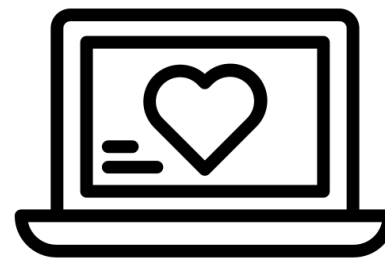
## TECHNOLOGY SUMMARY

### Innovative Approach for Cardiovascular Monitoring

The method estimates aortic pulse transit time (PTT) using time intervals measured between fiducial points obtained exclusively from the ballistocardiogram (BCG), which can be derived from systems with sensors like smart watches.



A system embedded in a common smart watch.



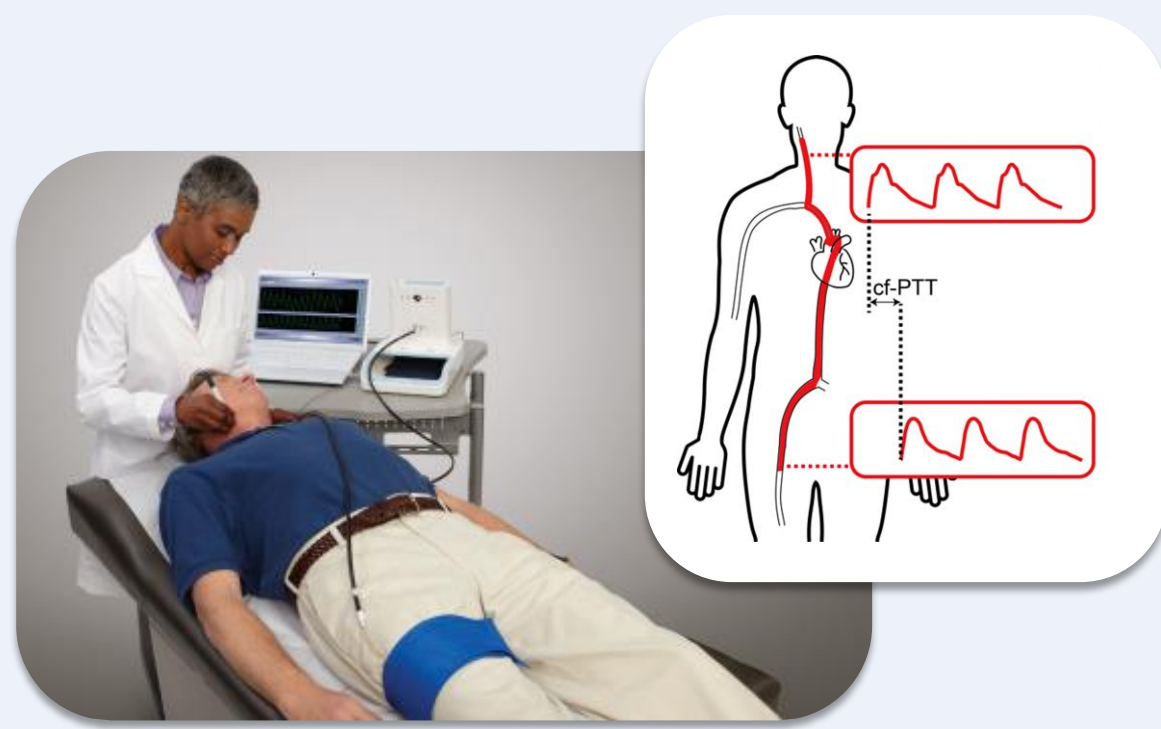
The BCG reflects mechanical information related to cardiac and vascular health.



The parameters obtained from the BCG are related to ageing, hypertension, risk of cardiovascular events, and myocardial health.

## ADVANTAGES

### State-of-the-art procedure for measuring aortic PTT



- ⌚ Preparation is required: exposing, cleaning, placing the sensors, and connecting the cables.
- ⌚ Require skill in sensor placement.
- ⌚ Entails slow procedures.
- ⌚ The user may feel slight discomfort during the procedure.

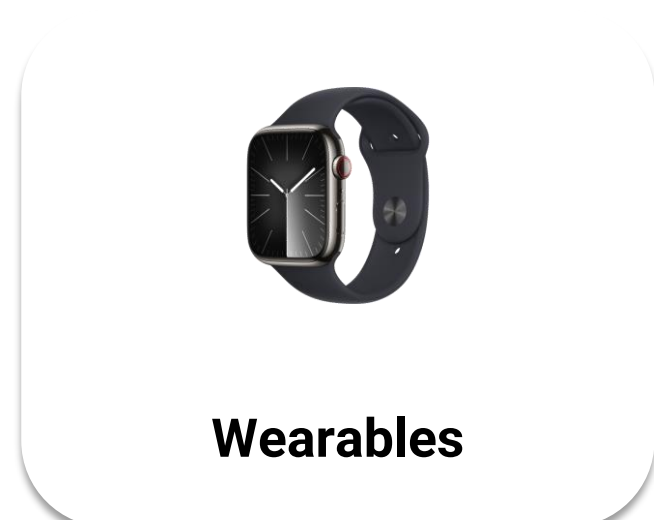
### Patented method for estimating aortic PTT



- ✓ Can be implemented in daily use objects such as body weight scales, wearables or clothing.
- ✓ Can be performed anywhere.
- ✓ Allow for quicker procedures.
- ✓ More comfortable for the user.

## USE CASES

### Integration of the technology in everyday devices



## PATENTS

|                 |                  |                 |                 |                  |               |
|-----------------|------------------|-----------------|-----------------|------------------|---------------|
| Patent Number   | US 10,925,516 B2 | ES 2 607 721 B2 | ES 2 656 765 B1 | KR 10-2206785 B1 | JP 6670376 B2 |
| Expiration Date | 22/02/2037       | 02/10/2035      | 27/07/2036      | 02/10/2035       | 02/10/2035    |