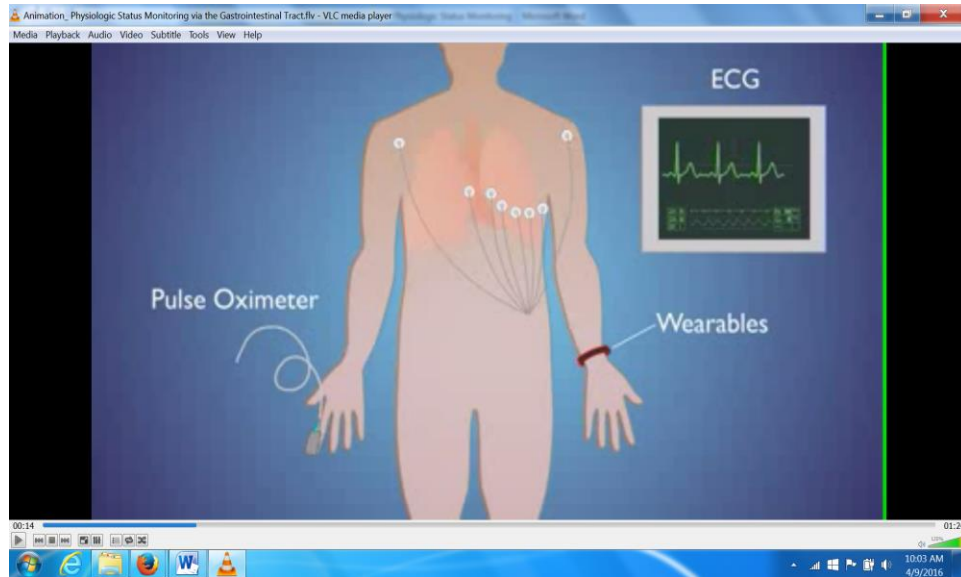
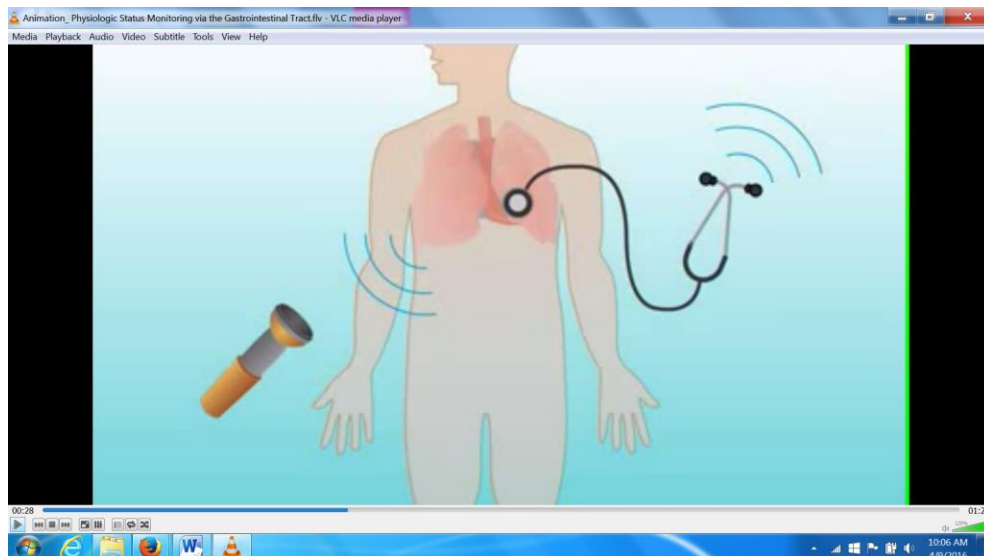


Physiologic Status Monitoring via the gastrointestinal tract using tiny pills

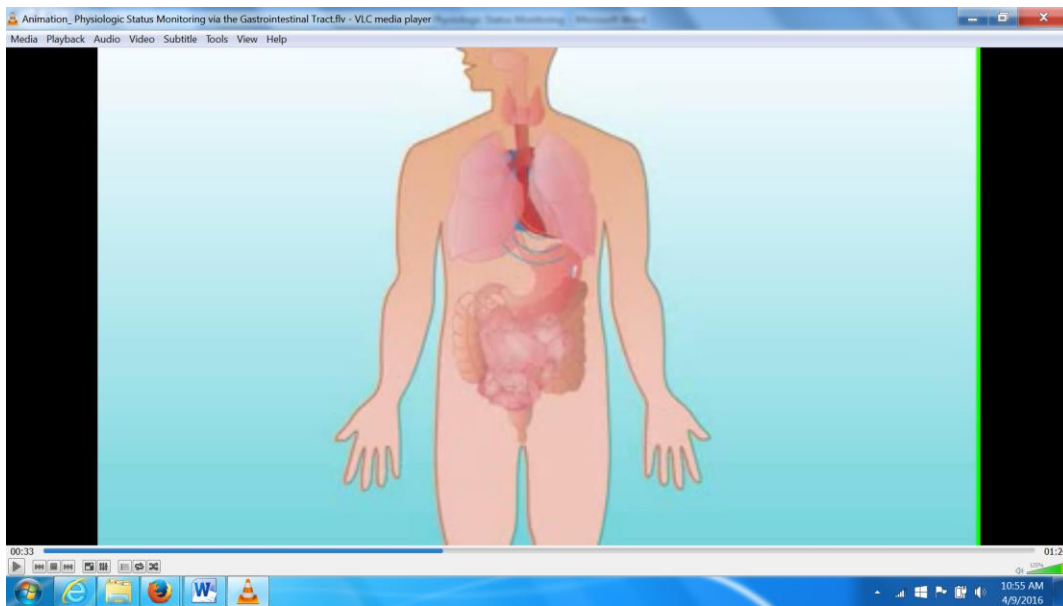
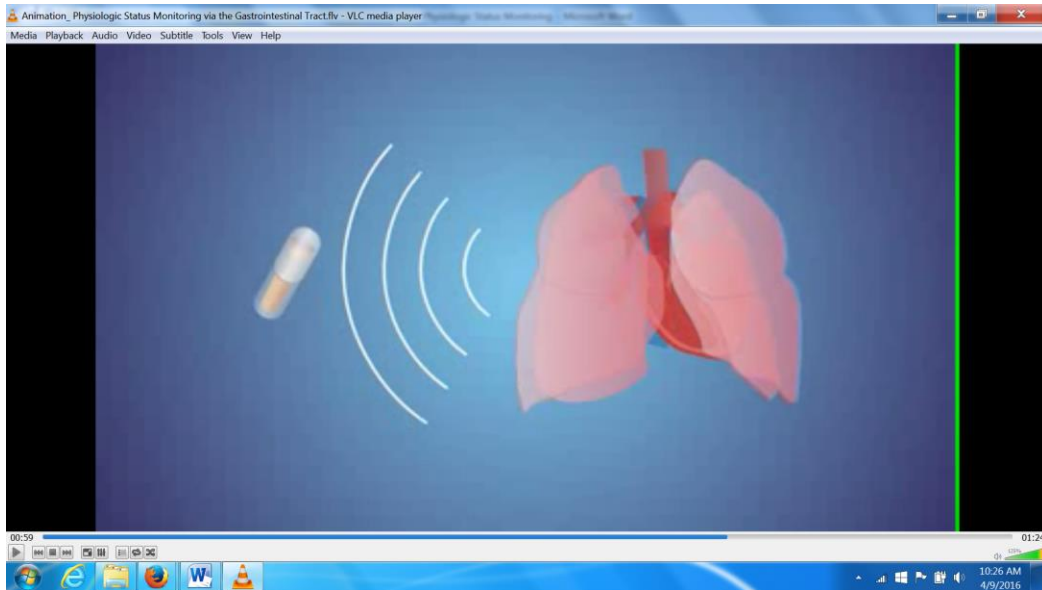
Today vital signs such as heart rate, respiratory rate, and body temperature are generally measured through skin contact using external devices like ECG, pulse oximeter and wearables devices.



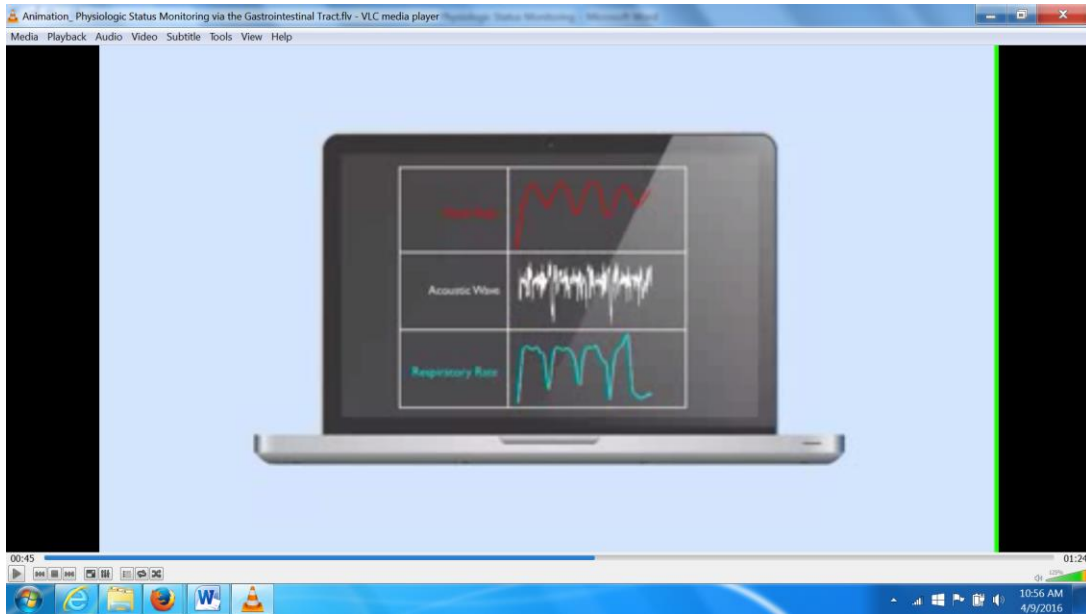
New devices (encapsulated in tiny pills) that can take measures without touching the skin like miniature microphone and temperature sensor that sense the vital signs from the sound that your heart and lungs make similar to what the doctor hear from the stethoscope.



Ingesting a device like this will enable rapid and continuous sensing and monitoring vital signs in the field.



From a single acoustic wave, we are able to distinguish heart rate, respiratory rate, and body temperature that can be transmitted externally for processing and evaluation.



There are significant applications with the ability to continuously monitoring the vital signs without the need of wearable devices. One example is in the defense industry in monitoring soldiers. Another example is in healthcare industry for monitoring patients at home, in emergency rooms, and trauma patients with skin contact difficulties or impossible. Finally this technology can be used by athletes to monitor optimal training.

