Abstract: Medical equipment used in screening tests usually differ from equipment used in diagnostic tests as screening tests are used to indicate the likely presence or absence of a disease or condition in people not presenting symptoms, while diagnostic medical equipment is used to make quantitative physiological measurements to confirm and determine the progress of a suspected disease or condition. Medical screening equipment must be capable of fast processing of many cases, but may not need to be as precise as diagnostic equipment. Common screening where medical devices are used include:

- Breast Cancer Screening: There are several approaches on this including molecular breast imaging, ultrasonography and magnetic resonance imaging. Molecular breast imaging uses a radioactive tracer that “lights up” any areas of cancer inside the breast. Medical ultrasonography is a diagnostic aid to mammography. Magnetic resonance imaging has been shown to detect cancers not visible on mammograms.
- Fetal screening: Ultrasound scanning is used to detect down syndrome. Also electric fetal monitors are used to monitor fetal wellbeing.
- Diabetic retinopathy: Fungus camera is used to detect this complication.
- Dental care: Dental radiographs are used to detect dental caries.
- Colorectal cancer: Colonoscopy techniques are employed.

Screening:

To identify a population for unrecognized condition (disease) without looking for symptoms. There are specific applications such as Universal Screening and Case Finding.

Types of Screening:

Mass Screening: whole population, irrespective to risk
Selective Screening: high risk only
Multiphasic Screening: concurrent, 2 or more

Prenatal Screening:

- **Hearth rate**: fetal echocardiogram

Screening for Diabetic Retinopathy:

**Fundus Camera**

Screening for Dental Caries:

**Dental Radiograph**

References:

1. Breast Cancer Screening by Mammography: Utilization and Associated Factors
2. Breast Cancer Screening With Imaging: Recommendations From the Society of Breast Imaging and the ACR on the Use of Mammography, Breast MRI, Breast Ultrasound, and Other Technologies for the Detection of Clinically Occult Breast Cancer. Carol H. Lee, MD