

ASUS Portable Ultrasound Glossory



M – M mode measurement

Ventricle Measure

- LVIDd : Left ventricular internal diameter end diastole
- LVIDs: Left ventricular internal diameter end systole
- EDV: End diastolic volume, amount of blood in the ventricle during diastole
- ESV: End systolic volume, amount of blood in ventricle after systole
- EDVIndex: End-diastolic volume index, referred to as EDV corrected for BSA
- ESVindex: End- systolic volume index
- SV: Stroke volume, volume of blood pumped from the heart in one cycle of diastole and systole, is affected by Preload, contractility and Afterload
- CO: Cardiac output, quantity of blood pumped per minute through the aorta and into the peripheral circulation, is proportional to $(\text{Arterial pressure} / \text{Total peripheral resistance})$
- EF: Ejection fraction, reflects the percentage of blood ejected from the ventricle
- FS: Fractional shortening

OB - OB calculations

- GA: Gestational Age.
- Fetal age: Conceptional age.
- EFW: Estimated fetal weight.
- AUA: Arithmetic ultrasound age.
- DOC: Date of conception.
- LMP: Last menstrual period.
- EDD: Estimated due date.

In Early OB

- CRL: Crown-rump length
- GS: Gestational sac.

In Mid-late OB

- AC: Abdominal circumference.
- HC: Head circumference.
- FL: Femur length.
- BPD: Biparietal diameter.

References

1. Early OB calculations: Hadlock 1992. Fetal Crown-Rump Length: Reevaluation of Relation to Menstrual Age with High-Resolution Real-Time US.
2. Mid-late OB calculations: Hadlock 1984 Hadlock F.P, Deter R.L, Harrist R.B. and Park S.K, Estimating fetal age: computer-assisted analysis of multiple fetal growth parameters, *Radiology*, 152, pp 497-501, 1984
3. EFW equations: EFW by AC, BPD FL, and HC: Hadlock 1985 Hadlock F.P, Harrist R.B, Sharman R.S, Deter R.L, Park S.K, Estimation of fetal weight with the use of head, body, and femur measurements—a prospective study, *Am.J.Obstet.Gynecol.*, 151, pp 333-337, 1985



PW - PW mode measurement

The glossary of "Auto Measure"

- HR (bpm) : Heart rate
- PSV (cm/s) : Peak systolic velocity
- EDV (cm/s) : End diastolic velocity
- PI : Pulsatility index (of Gosling)
 $PI = (PSV - EDV) / MV$
MV (cm/s) : Mean velocity
- RI : Resistance index (of Pourcelot)
 $RI = (PSV - EDV) / PSV$
- VTI (cm) : Velocity-time integral
- TAV Max (cm/s) : The maximum of time-averaged velocity
- S/B : The average RI of a cycle
- SD : Systolic/Diastolic Ratio
 $SD = PSV / EDV$
- ACCL (cm/s²) : The acceleration index
 $ACCL = (PSV - EDV) / ACCT$
- ACCT (s) : The time from the lowest (EDV) to the highest (PSV)
- VFM (ml/min) : Volume flow per minute
- VFC (ml) : Volume flow per cycle
- VFM Max (ml/min) : The maximum of volume flow per minute
- Diam (mm) : Diameter

The glossary of measure tool "PW V, T, HR"

- T (s) : Time
- HR (bpm) : Heart rate
- Range (cm/s) : The range of flow velocity

The glossary of measure tool "RI, S/D"

- PSV (cm/s) : Peak systolic velocity
- EDV (cm/s) : End diastolic velocity
- S/D : Systolic/Diastolic Ratio
 $SD = PSV / EDV$
- RI : Resistance index (of Poucelot)
 $RI = (PSV - EDV) / PSV$

The glossary of measure tool "PI"

- PSV (cm/s) : Peak systolic velocity
- D (cm/s) : End diastolic velocity
- Area (cm²) : Blood vessel cross-sectional area



- Diam (mm) : Diameter
- PI : Pulsatility index (of Gosling)
$$PI = (PSV - EDV) / MV$$

MV (cm/s) : Mean velocity
- VFM Max (ml/min) : The maximum of volume flow per minute
- TAV Max (cm/s) : The maximum of time-averaged velocity

The glossary of measure tool "VTI"

- VTI (cm) : Velocity-time integral



CARDIAC - Cardiac measurement in B mode

- BSA: Body Surface Area
= $(\text{Height} * \text{Weight} / 3600)^{1/2}$
- SV (ml): Stroke volume
= EDV - ESV
- SI (ml/m^2): Stroke volume index
= SV / BSA
- CO (l/min): Cardiac output
= $\text{SV} * \text{HR} / 1000$
- CI ($\text{l}/\text{m}/\text{m}^2$): Cardiac Index
= CO / BSA
- EF (%): Ejection fraction
= $\text{SV} / \text{EDV} * 100\%$

