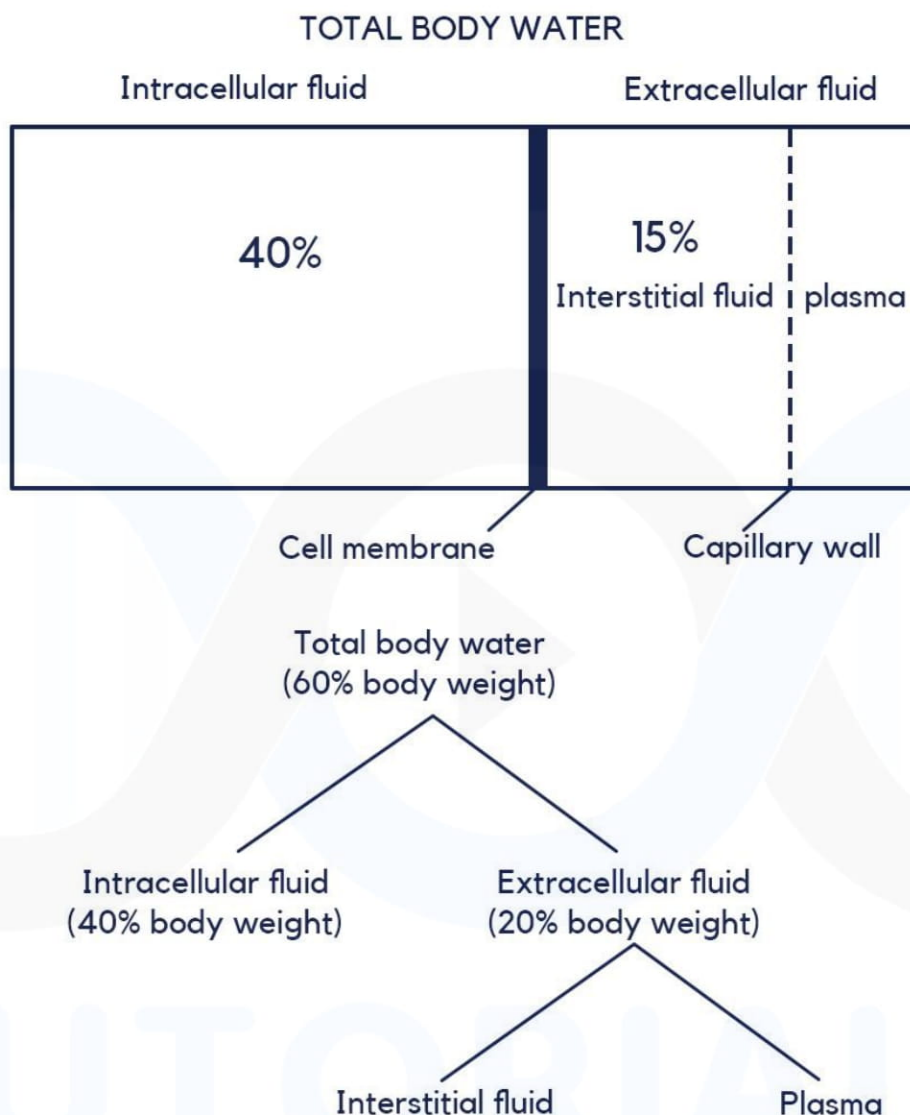


PERI OPERATOR FLUIDS

Peri operative fluids



- Plasma is our target space for anaesthesia

Types of fluid

00:00:45

Crystalloid	Colloid
• Aqueous solution of LMW electrolyte • Achieves rapid equilibrium throughout ECF - Replacement ratio- 3:1 - Newer studies 1.5:1 • Hypotonic • Isotonic • Hypertonic- Based on comparison to plasma Osmolality	• Aqueous solution of HMW substance • Remain in intravascular space • Hence replacement ratio 1:1 • Natural and synthetic • Always isotonic

Types of crystalloid

00:03:24

- Most common perioperative fluid
- Isotonic crystalloid is used
- Adult- Balanced salt solution (MC), Ringer's lactate, Hartman's solution
- Pediatric- Balanced salt solution + 2.5% Dextrose

IV Cannulation

00:04:40

Requirements:

- Right size of cannula
- Torniquet
- Spirit swab
- Pair of gloves
- Adhesive
- 5ml/2ml syringe with saline to flush the cannula

Color-coding of IV cannulas

Color	Gauge	Maximal Flow Rate(mL/min)
Yellow	24G	13
Blue	22G	31
Pink	20G	67
Green	18G	103
Gray	16G	236
Orange	14G	270

- Orange & grey cannulas are used in trauma resuscitation or cardiac surgeries where there is risk of huge blood loss
- Pink & green- Adults in Perioperative period for fluid supplementation
- Blue- Pediatric
- Yellow- Infant/Neonate

Flow rates: -

- Green: 18G – 95-110ml/min
- Pink: 20G – 55-60ml/min

PERI OPERATOR FLUIDS

Definition

- Peri operative fluids
- Focus on plasma for anaesthesia

Types of Fluid

- Crystalloid
 - Aqueous solution of LMW electrolyte
 - Rapid equilibrium in ECF
 - Replacement ratio: 3:1 (new studies 1.5:1)
 - Types:
 - Hypotonic
 - Isotonic
 - Hypertonic (based on plasma osmolality)
- Colloid
 - Aqueous solution of HMW substance
 - Remains in intravascular space
 - Replacement ratio: 1:1
 - Types: Natural and synthetic (always isotonic)

Most Common Perioperative Fluid

- Isotonic Crystalloid
 - Adult
 - Balanced salt solution (MC)
 - Ringer's lactate
 - Hartman's solution
 - Pediatric ——— Balanced salt solution + 2.5% Dextrose

IV Cannulation

- Requirements
 - Right size of cannula
 - Torniquet
 - Spirit swab
 - Pair of gloves
 - Adhesive
 - 5ml/2ml syringe with saline to flush
- Cannula Color Codes
 - Orange & grey: trauma/cardiac surgeries
 - Pink & green: adults for fluid supplementation
 - Blue: pediatric
 - Yellow: infant/neonate
- Flow Rates
 - Green (18G): 95-110ml/min
 - Pink (20G): 55-60ml/min