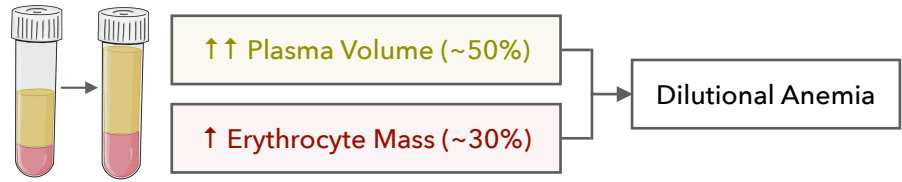


PHYSIOLOGIC CHANGES OF PREGNANCY: HEMATOLOGY

Physiologic Anemia of Pregnancy

- ↑ Blood volume ~40% (high-volume state)
 - Mediated by Na⁺ retention via RAAS
- ↑↑ Plasma > ↑ RBC → ↓ Hematocrit (% of RBCs)
- Hematocrit: 34-36% Hemoglobin: 11-12 g/dL

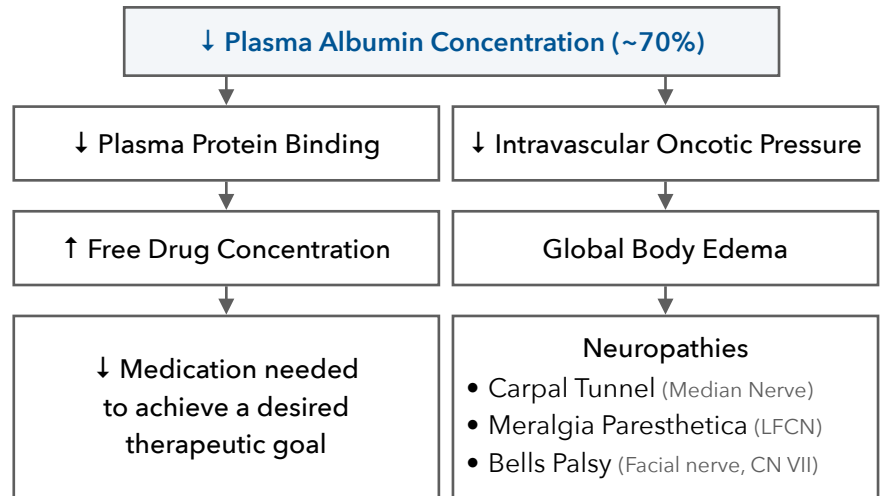


↑ Plasma Volume → ↓ Albumin Concentration

- Rate of consumption & synthesis unchanged

↓ Plasma Cholinesterase ~25%

- ↑ Volume of distribution (Vd) → Unchanged metabolism of Succinylcholine & Ester Local Anesthetics
- Postpartum → Vd returns to baseline before Plasma cholinesterase → ↑ Succinylcholine duration of action



Hypercoagulability → ↑ Thrombosis risk

- ~50% ↑ in blood coagulation factors
- Inhibition of fibrinolysis
- Inhibition of anticoagulant agents
- Hypercoagulability returns to baseline 4 weeks postpartum

Procoagulant	
II, V	Unchanged
I, VII, VIII, IX, X, XII, vWF	↑
XI, XIII	↓
Anticoagulant	
Protein C	Unchanged (↑ resistance)
Plasminogen	↑
ATIII, TPA, Protein S	↓

Factor I = Fibrinogen Factor II = Thrombin vWF = Von Willebrand factor ATIII = Antithrombin III TPA = Tissue plasminogen activator

