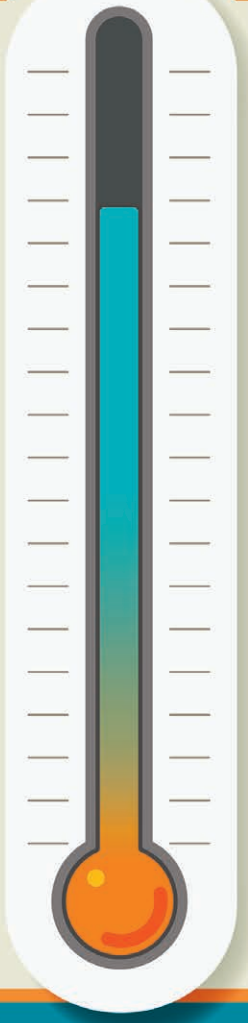
Taking the Temperature on Platelet Storage

Platelets are commonly stored at room temperature (22°C), which preserves normal life span after transfusion but degrades their hemostatic effect.[1] This is effective for thrombocytopenic patients but may not be ideal for other patients.



- **1818** — 1st successful human blood transfusion[2]
- **1907** — 1st transfusion with type and crossmatch
- **1939** — Rh group discovered
- **1961** — Platelets reduce bleeding mortality in cancer patients
- **1973** — Cold-stored (22°C) platelets perform better than room temperature in thrombocytopenic patients
- **2014** — Better bacteriologic safety and hemostatic effect shown for cold-stored platelets
- **1900** — ABO blood types discovered
- **1910** — Platelet transfusions decrease bleeding risk[3]
- **1940** — U.S. starts blood collection program
- **1969** — Room temperature platelet storage for 3 days achieved
- **1974** — Cold-stored platelets perform better in aspirin-treated volunteers
- **2004** — FDA clears platelets for 7-day storage with bacterial testing
- **2020** — Clinical trial feasibility of cold-stored platelets demonstrated in a study of 65 complex cardiothoracic patients[4]

While *in vitro* and clinical studies show hemostatic superiority of cold-stored platelets, larger randomized controlled trials are needed to assess efficacy and safety for surgical and trauma usage.

FDA, Food and Drug Administration.

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