A study published in 2004 by cardiologists at Duke even questioned the benefit of transfusions in those high-risk cardiac populations. As with any medical therapy, the decision to transfuse must be made in the context of an informed risk and benefit analysis.

Table 8-1
Orthopedic Blood Management Strategies

**Preoperative**
- Early identification of patients at high risk of transfusion
- Blood management algorithms
- Selective use of erythropoietic agents and iron therapy
- Discontinuation of drugs and herbal medicines that increase bleeding
- Autologous predonation (not recommended)

**Intraoperative**
- Minimization of surgical time
- Regional anesthesia
- Temperature maintenance
- Patient positioning
- Controlled “normotension”
- Cautery
- Topical hemostatic agents
- Intraoperative autotransfusion
- Antifibrinolytics (tranexamic acid, epsilon-aminocaproic acid) and serine protease inhibitors (aprotinin)
- Point of care testing
- Evidence-based transfusion decisions

**Postoperative**
- Evidence-based transfusion decisions
- Postoperative autotransfusion (washed)
- Minimize iatrogenic blood loss

Table 8-2
Blood Management Principles

- Early identification and intervention for patients at high risk for transfusions
- Utilization of current scientific evidence and the promotion of clinical best practices
- Alignment and coordination of all members of the health care team
- Patient advocacy and patient safety
- Stewardship of scarce and expensive hospital resources