Table 3.1 Comparison of attributes of the basic flap subtypes

	Bone	Cutaneous non-perforator based	Cutaneous perforator	Intestine	Muscle	Toe
Ease of dissection	Somewhat difficult	Easy	Difficult	Requires laparotomy	Easy	Moderately difficult
Anatomic anomalies	Occasional	Rarely important	Expected	Rare	Rare	Common
Availability	Always	Always	Usually	Always	Always	Possible
Potential for harvest as compound flap	Sometimes	Sometimes	Always	Never	Usually	Sometimes
Contour (thin → bulky)	N/A	Variable	Variable	Moderate thickness	Relatively thin	N/A
Potential for thinning	No	Secondarily	Immediate	No	Yes	No
Donor site morbidity	Potential	If skin graft necessary	If skin graft necessary	Requires laparotomy	Loss of function	Potential, especially great toe
Dynamic transfer	No	No	No	No	Yes	No
Expendability	Maybe	Yes	Yes	Yes	Maybe	Maybe
Reliability (blood supply)	Usually good	Can be precarious	Usually good	Always	Best	Sometimes
Sensibility	No	Yes	Yes	No	No	Yes
Surface area	N/A	Small	Very large	Moderate	Large	N/A
Vascular pedicle caliber	Large	Variable	Can be large	Very large	Large	Large
Vascular pedicle length	Short	Variable	Exceedingly long	Very long	Medium	Medium
When used as pedicled flap						
Arc of rotation	Short	Limited	Wide	N/A	Wide	N/A
Reliability	Usually good	Can be precarious	Usually good	N/A	Best	N/A
Need for supercharge	Sometimes	Usually not possible	Sometimes	N/A	Not possible	N/A

N/A, not applicable.

Table 3.2 Comparison of attributes of "workhorse" muscle-free and pedicled flaps

	Gracilis	Gastrocnemius	Gluteus	Latissimus dorsi	Pectoralis major	Rectus abdominis	Soleus	Trapezius
Ease of dissection	Easy	Minimal difficulty	Moderate difficulty	Easy	Easy	Easy	Minimal difficulty	Moderate difficulty
Anatomic anomalies	Not important	Not important	No	No	Not important	No	Not important	Sometimes
Potential for harvest as compound flap/component tissues that can be included	Yes/skin	Yes/skin, tendon	Yes/skin, bone unusual	Most versatile/ skin, rib, scapula bone	Yes/skin, rib	Yes/skin	Not usually	Yes/skin, scapula bone
Contour (thin → bulky)	Moderately thin	Moderately thick	Thick	Moderately thick	Moderately thick	Thin	Moderately thick	Thin
Potential for thinning	Yes	Yes	Yes	No	No	Difficult due to inscriptions	Yes	No
Dynamic transfer	Best	Pedicle transfer	No	Minimal value	Minimal value	Segmental innervation	Pedicle transfer	Yes, for shoulder
Donor site morbidity	None	Some, if athletic	Significant, if ambulatory	Minimal	Limited	Can be significant	Some, if athletic	Possible, shoulder drop
Surface area	Narrow	Moderate	Small	Largest	Moderate	Small	Moderate	Moderate
Vascular pedicle caliber	Moderate	Moderate	Large	Large	Moderate	Large	Small	Moderate
Vascular pedicle length	Medium	Medium	Short	Long	Short	Long	Variable	Medium
When used as pedicled flap								
Arc of rotation	Moderate	Limited	Limited	Great	Great	Wide	Limited	Great
Reliability	Very good	Always	Usually	Always	Very	Usually	Usually adequate	Usually
Need for supercharge	No	No	No	No	No	Possible	No	Possible
Potential for harvest as distally based	No	Unusual	No	Yes, on secondary pedicles	Yes, on secondary pedicles	Yes, has two dominant pedicles	Only if distal perforator present	No
Need for delay procedure	No	No	No	No	Sometimes, if composite flap	Sometimes, if composite flap	No	No
Splitting into subportions	Maybe	No	Yes	Yes	Yes	No	Yes	Maybe