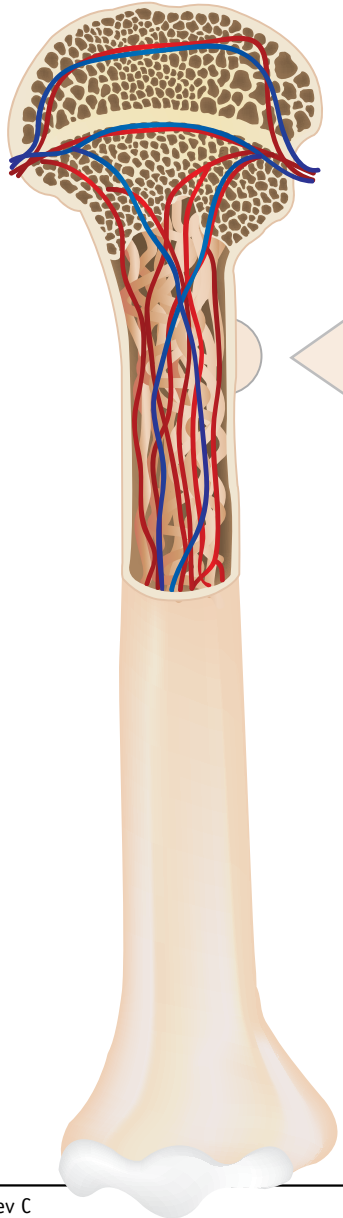
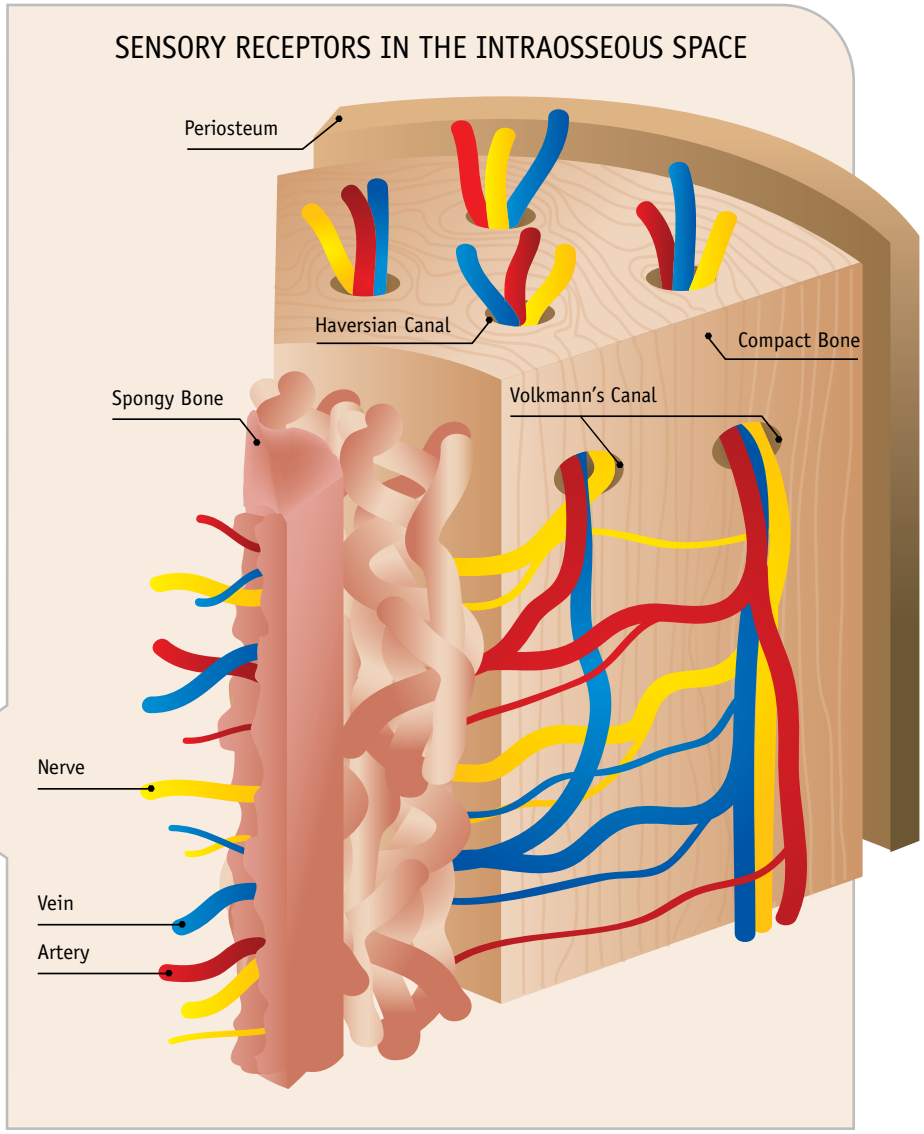
Lidocaine Administration for the Alert Patient

The intraosseous (IO) space contains a matrix of blood vessels and nerves. This structure provides rapid distribution of fluids and medications, and also contains numerous sensory receptors that register pressure variations. This pressure can be very uncomfortable, even painful for a responsive patient.





Because fluids and medications must be delivered under pressure to overcome the inherent pressure in the IO space, an anesthetic agent is necessary to blunt innervation of these receptors. Consider IO 2% lidocaine without preservatives or epinephrine (cardiac lidocaine) for patients responsive to pain – prior to flush. Medications intended to remain in the medullary space, such as a local anesthetic, must be administered very slowly until the desired anesthetic effect is achieved. A Medical Director must authorize appropriate dosage range.†

† *The amount of lidocaine required to achieve pain relief in awake and responsive patients may vary based on individual differences and distracting injuries or conditions. Clinical correlation and judgment are required. Vidacare publication M-220 is an annotated bibliography of clinical research studies that address management of IO infusion pain and can be used as a resource for medical directors to determine appropriate dosage range.*