



Clarity in a heartbeat

World's first **dedicated** pediatric hemodynamic monitor



World's first dedicated pediatric

The pediatric esophageal Doppler probe is minimally invasive and specifically designed for use in sedated or anesthetized pediatric patients. Used with the esophageal Doppler monitor (EDM+), it takes into consideration the unique physiology and anatomy of the pediatric population. EDM+ in Doppler flow monitoring mode is the gold standard for hemodynamic monitoring. Connection of an arterial line for pressure monitoring mode is optional.

The clinical benefits of EDM+ stem from the direct measurement of blood flow in the central circulation. EDM+ reliably and rapidly detects the crucial small signs of hemodynamic change that are crucial to treatment decisions. EDM+ uses Doppler ultrasound to capture a visual representation of the red blood cells as they move through the descending aorta.

EDM+ and the dedicated pediatric probe:

- Is suitable for children $\geq 3\text{kg}$, $\geq 50\text{cm}$ tall and < 16 years old (For patients ≥ 16 years old, utilize an adult probe)
- Uses a minimally invasive, dedicated pediatric probe, designed to meet the physiological requirements of children
- Incorporates a specialized pediatric nomogram, reflecting the unique physiology of pediatric patients
- Includes a specialized body surface area formula shown to have increased accuracy in pediatric applications.

EDM+ can be safely used to monitor cardiac function and fluid status, using the dedicated pediatric Doppler probe, placed orally in anesthetized or sedated patients.

EDM+ combines Doppler measurement of blood flow with Pulse Pressure Waveform Analysis (PPWA). This provides users with a proven, highly sensitive "Flow Monitoring Mode" and the simplest calibration of a "Pressure Monitoring Mode" for extended continuous monitoring

EDM+ is ideal for:

- Monitoring fluid and drug therapies in intensive care
- Monitoring cardiac function
- Monitoring surgical patients
- Fluid monitoring in high blood loss surgery
- Perioperative fluid management

Designed for surgical and intensive care applications, EDM+ uses the most stable and extensively researched PPWA algorithm currently available

Instances where EDM+ and the pediatric probe can be utilized in pediatric patients include:

- Sepsis
- Major abdominal surgery
- Laparoscopic surgery
- Transplant procedures
- Cardiac procedures
- Trauma procedures
- Spinal surgery

No other hemodynamic monitor provides the benefits of both the precision of Doppler and a stable, easily calibrated continuous monitoring system for pediatric patients.

The EDM+ System provides:

- Dedicated single patient disposable pediatric probe
- Pediatric-specific software that includes specialized pediatric nomogram and dedicated formula for determining body surface area
- Ability to connect to the existing patient monitoring system to provide additional blood pressure monitoring signal for PPWA

EDM+ provides:

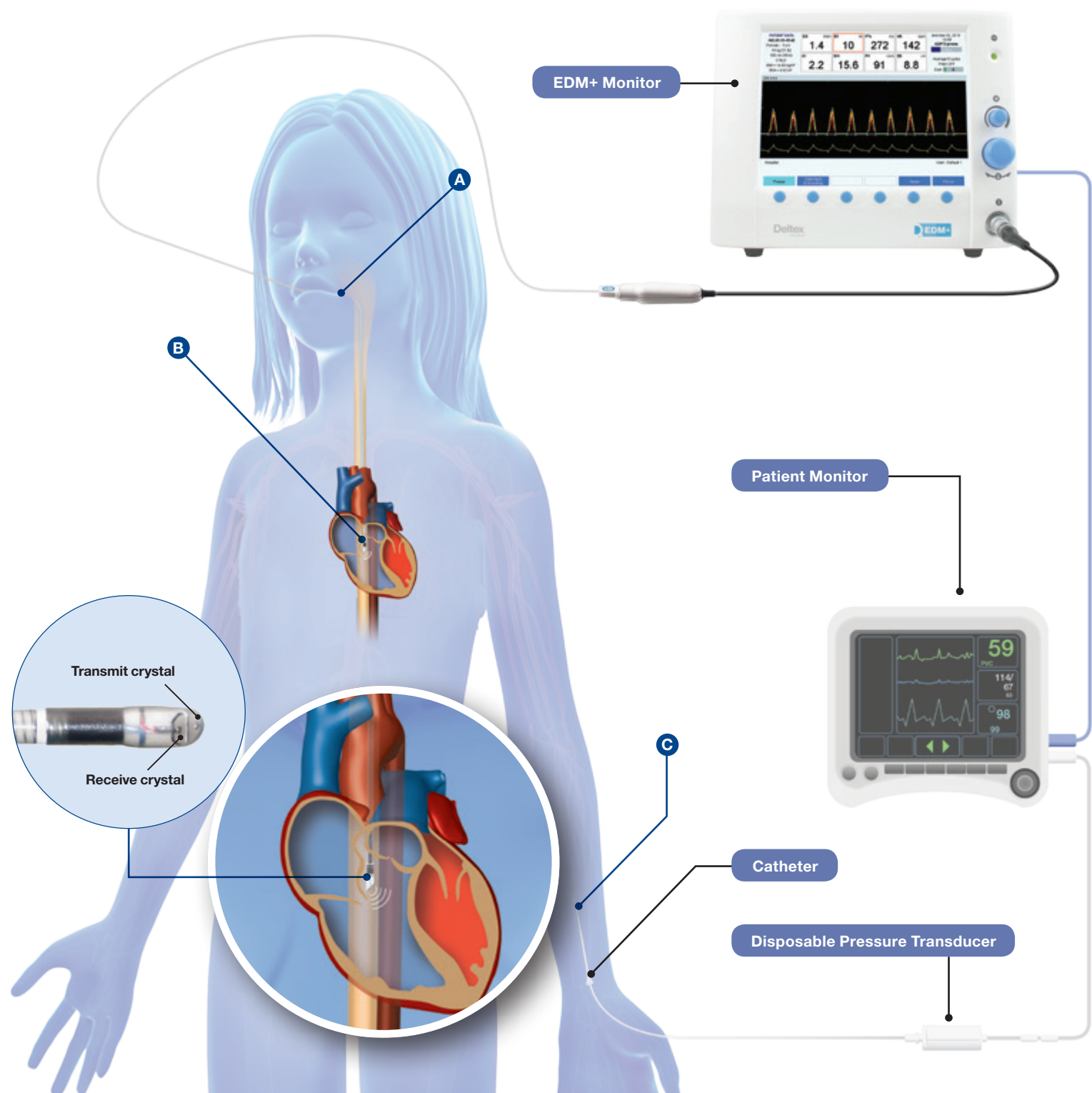
- Flow Monitoring Mode
- Pressure Monitoring Mode
- Quick, easy calibration at the touch of a button.

hemodynamic monitor



FIGURES

- A** An esophageal Doppler probe is inserted into the patient's esophagus orally.
- B** The transmit and receive piezo electric crystals at the tip of the probe measure velocity of blood flow in the descending aorta.
- C** Peripheral artery catheter for continuous measurement of arterial blood pressure.





References

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Product Description

CardioQ-EDM+ Monitor

(Product Code: 9051-7166)

For adult and pediatric use in operating room and critical care.

Pediatric Probes

KDP72 (Product Code: 9081-7002)

72-hour oral Doppler probe for anesthetized pediatric patients.

Adult Probes

EDP240 Doppler Probe

(Product Code: 9070-7006)

10-day oral/nasal Doppler probe for patients under anesthesia or full sedation.



For clarity in a heartbeat, think Doppler

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