



**FAST1**<sup>™</sup>  
Intraosseous Infusion System

**CHEST IS BEST**<sup>™</sup>

## **FAST1** Sternal Line<sup>™</sup> is the quickest route to the heart.

**FAST1**<sup>™</sup> Intraosseous Infusion System saves lives.

### **When Every Second Counts**

In medical emergencies rapid, reliable vascular access is vital for the administration of life saving drugs and fluids. Over a million attempts to place IV lines fail each year. Even successful IV placement can take up to 10 minutes.

With **FAST1**<sup>™</sup> **Intraosseous Infusion System**, drugs reach the patient's heart in seconds. In critical care situations – on the street, in the hospital and in the battlefield – our patented sternal line allows rapid flow of drugs and fluids through the bone marrow and into the central venous system.

Specifically designed for demanding, emergency environments, **FAST1**<sup>™</sup> delivers drugs to the heart 2 – 3 times faster than tibial IO\*.

- Fastest route to the heart
- Precise placement, every time
- Excellent concurrent treatment coordination
- Sterile, one-time use
- Automatic depth control
- Low-profile, secure tubing
- Sleek and lightweight

\*Kramer

*"The frequent difficulty in accessing veins has made IO a necessary alternative in emergency pediatric care."*

***FAST1**<sup>™</sup> Intraosseous Infusion System makes this procedure available for adults."*

**PYNG** MEDICAL

[www.pyng.com](http://www.pyng.com) 1-800-349-7964

# Get the Facts on Sternal IO

## **FAST1™** and Sternal Intraosseous Infusion



The past several years have seen significant growth in the utilization of intraosseous infusion in the emergency medical community, driven by changing treatment guidelines and an increased awareness of the safety and efficacy of the procedure. Here are the facts.

### **Chest is Best™**

Not all IO is clinically equal. Sternal IO delivers drugs to the heart 2 – 3 times faster and in higher therapeutic concentrations than tibial IO in cardiac arrest patients\*. **FAST1™** saves lives.

### **It's FAST**

Actual insertion is complete within 10 seconds. In numerous field studies, the entire **FAST1™** procedure – from site prep to securing the protective dome – can easily be accomplished in under 60 seconds.

### **It's SIMPLE**

The target patch ensures quick, accurate placement on the sternum. In published studies, placement success rates are greater than 95%.

### **It's EFFECTIVE**

**FAST1™** allows for continuous chest compressions. A quick comparison of the chest compression site and **FAST1™** target patch clearly shows no interference between the two. In fact, users find it easier to manage treatment from a single location near the patient's head.

### **It's SAFE**

As a single-use device activated using only manual pressure, **FAST1™** is your safe IO option. With no risk of cross contamination, user-controlled deployment, as well as patented, automatic depth control, both patients and EMS personnel are protected.

\*Kramer

**Ensure you have *all* the facts when making protocol and equipment decisions.**

### **The Evidence Is In**

Clinical evidence supports the efficiency and effectiveness of **FAST1™** in demanding emergency environments on the street, in the hospital, and in the battlefield. See the back cover of this brochure for citation information.

### **Intraosseous Infusion Included in ILCOR/AHA Guidelines**

The International Liaison Committee on Resuscitation and the AHA include intraosseous infusion in their guidelines as an alternative treatment to intravenous access for the infusion of fluids and drugs.

### **Try It For Yourself**

Call us today to arrange for your demonstration.  
1-800-349-7964

# Simple to Use



1

Clean



2

Locate sternal notch  
Apply Patch



3

Insert Introducer



4

Withdraw Introducer



5

Connect tubing



6

Place Dome



## Testimonials

### Indispensable for the Life-Saving Tool Kit

"We have placed over 40 of these devices and I am here to tell you no service should be without it. When time and venous access are imperative, the **FAST1™** can pull any provider out of a jam. Our quality assurance program has revealed that this device can be placed in an average of 54 seconds and any level of provider can place it effectively.

I really don't know how a department can handle the unexpected situations you come upon in a trauma call without this device to fall back on. Thank you for such a great product."

#### Lt. Lanney C. Jones

Chief Flight Paramedic, MS Medflight IE  
Richmond, Virginia

### Saving Lives Under Fire

"While on a dismounted patrol we took heavy fire. As I responded to the multiple calls for help, I remembered having a couple of the **FAST1™** kits in my med bag. My second casualty [was] a burn victim. I needed to rapidly infuse a lot of fluids and still be able to return fire. I wouldn't have time to do a standard IV. After the victim was as stable as I could get him, I ran to the next... The rest is history. Because of your product, I was able to get him home to his family alive. Had I wasted time and used a standard IV...who's to say how it would have turned out."

#### Doc 2nd Battallion 3rd Marines

Al Anbar, Iraq

### Life-Saving Advancement in Pre-Hospital Care

"Over the last 2 years I have had the opportunity to use the **FAST1™** on multiple patients that required ALS interventions. I have found the **FAST1™** to be extremely effective and user friendly. It has been absolutely amazing how rapid venous access can be established... The **FAST1™** has saved many lives and will save many more. This has been an excellent advancement in the pre-hospital care that we can provide to patients."

#### Jason LeMoine

Paramedic Engineer, Registered Nurse  
San Francisco Bay Area (East Bay)

### Guaranteed Access in the Field

"This is a great product. I have used it three times now – twice on combat related injuries – and it has always provided guaranteed access in shock and burn patients."

#### HM<sup>3</sup> (FMF) Michael Andersen

Saqlawiyah, Iraq

### Moving One Order Of Magnitude Forward

"There are a great many emergency rooms, a great many pre-hospital situations and even hospital situations, where the ability to use a simple and rapid means of accessing the vascular compartment by means of the intraosseous route will be of great benefit. It's not that we are replacing good technology with another good technology, we're really moving the technology one order of magnitude forward with the **FAST1™** device that Pynq Medical have developed."

#### Dr. Andrew Macnab

Professor of Pediatrics, Faculty of Medicine, UBC, Specialist in Pediatric Intensive Care  
Member, Medical Advisory Committee, BC Ambulance Service  
Vancouver, BC Canada

## Clinical Papers

### **A New System for Sternal Intraosseous Infusion in Adults**

Andrew Macnab, MD, Jim Christenson, MD, Judy Findlay, PEng, MASc, Bruce Horwood, MD, David Johnson, PhD, Lanny Jones, Kelly Phillips, Charles Pollack Jr., MD, David J. Robinson, MD, Chris Rumball, MD, Tom Stair, MD, Brian Tiffany, MD, PhD, Max Whelan, MD Prehospital Emergency Care 2000; 4(2): 173-177



### **Paramedic Evaluation of Adult Intraosseous Infusion System**

J Findlay, PEng, David L Johnson, PhD, Andrew J Macnab, MD, FRCPC, D MacDonald, R Shellborn, L Susak, RN, BScN, Prehospital Disaster Medicine 2006; 21(5): 329-334

### **The Sternal IO and Vascular Access-Any Port in a Storm**

Mark Vojtko, RN, BSN, CCRN, and Dan Hanfling, MD, FACEP, Air Medical Journal 2003; 22(1): 32-35

### **Obtaining Vascular Access: Is There a Place for the Sternal IO?**

Ralph Frascone, MD, David Dries, MSE, MD, Terry Gisch, NREMT-P, Koren Kaye, MD, and Joe Jensen, NREMT-Pair, Medical Journal 2001; 20(6): 20-22

### **Field Trial of the FAST1™ Adult Intraosseous Infusion System by EMT Paramedic and EMT-Intermediate Personnel Regions Hospital - Saint Paul, Minnesota**

RJ Frascone, MD, Koren Kaye, MD, Terry A Provo, EMT-P, Joe Jensen, RN, EMT-P Prehospital Emergency Care 2003; 7(1): 174

### **Intraosseous Infusion**

Brian G. LaRocco, BS, Henry E. Wang, MD, Prehospital Emergency Care 2003; 7(2): 280-285

### **Intraosseous Infusion Devices: A Comparison for Potential Use in Special Operations**

Mark D. Calkins, MD, Geoff Fitzgerald, MD, Timothy B. Bentley, PhD, and David Burris, MD The Journal of Trauma: Injury, Infection, and Critical Care 2000; 48(6): 1068-1074

### **Using a Sternal IO Device in Adults**

Michael W Day, RN, CCRN, NREMT, MSN, Nursing99 1999; 29(12): 22-23

### **Cadaver Testing to Validate Design Criteria of an Adult Intraosseous Infusion System**

David L Johnson, MD, J Findlay, PEng, Andrew J Macnab, MD, FRCPC, L Susak, RN, BScN Military Medicine 2005; 170(7):vii

### **Precautions**

Precautions in using **FAST1™** include small patient size, previous sternotomy, evidence of severe skin compromise such as trauma, infection or burns over the insertion site, or fracture or vascular injury which would compromise the integrity of the manubrium or its vascularization. Safety of **FAST1™** in patients with very severe osteoporosis or other bone pathology has not been proven. Pyng Medical Corp. has demonstrated a high degree of reliability in **FAST1™** System and the performance of its components.

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