

# The Boston Marathon Bombings: The Early Plastic Surgery Experience of One Boston Hospital

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**Background:** On April 15, 2013, at approximately 2:49 p.m. EDT, two improvised explosive devices detonated near the finish line of the 117th Boston Marathon. Patients were transported from the scene to several trauma centers, including the authors' institution.

**Methods:** Plastic surgical assessment of patients began in the Emergency Department and then rapidly expanded as the scope of the incident became clear. Daily interdisciplinary meetings involving the acute care surgery, orthopedic surgery, plastic surgery, and nursing services were convened in order to coordinate operating room schedules and treatment plans. An interdisciplinary weekly clinic continued until all patient goals had been reached.

**Results:** Twenty-four patients were treated at Beth Israel Deaconess Medical Center within the first 24 hours of the Boston Marathon bombing. Seven were triaged directly to the operating room from the Emergency Department. The Division of Plastic Surgery was directly involved with the care of 11 patients, all of whom were treated surgically within 24 hours of the bombing. Patients were aged 23 to 50 years old. All 11 patients sustained lower extremity injuries with gross contamination. Four patients also sustained significant upper extremity trauma. Injuries included extremity amputations and fractures, soft-tissue loss, impaction of nails and other debris, burns, ocular injury, and ruptured tympanic membranes.

**Conclusions:** Twenty-four patients received acute care at Beth Israel Deaconess Medical Center following the Boston Marathon bombing. Institution of dedicated interdisciplinary daily rounds, protected operating room block time, and joint follow-up clinic allowed for efficient early diagnosis and treatment of patients' injuries. (*Plast. Reconstr. Surg.* 132: 1351, 2013.)

On April 15, 2013, at approximately 2:49 p.m. EDT, two explosions occurred within 10 feet of the finish line of the 117th Boston Marathon. Police recorded at least 264 people injured and three people killed. The blasts were secondary to two improvised explosive devices fashioned from pressure cookers filled with nails and metal pellets placed in backpacks and left on the sidewalks next to spectators. This article discusses early management strategies in a mass

casualty incident and specifically the role of the plastic and reconstructive surgery service in the acute setting following the Boston Marathon bombings in one Boston hospital (Beth Israel Deaconess Medical Center). It also outlines the risks posed by improvised explosive devices and trends in mass casualty protocols following September 11, 2001.

## IMPROVISED EXPLOSIVE DEVICES

The bombing at the 2013 Boston Marathon demonstrated the devastation that can ensue with an improvised explosive device. The use of such

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