

Combined Protection
of Sternotomy Wound
and Bone Stability
for Fuller-sized Women



Who should use QualiBra Advanced?

Patients with breast cup D or larger, undergoing major chest and cardiac surgery, including:

- Median sternotomy for coronary artery bypass grafting (CABG)
- Valve replacement or repair surgery
- Aortic surgery (ascending, arch, or root repair)
- Heart transplant
- Ventricular assist device implantation (LVAD)
- Redo or complex re-operations via sternotomy
- Combined cardiac and thoracic procedures
- High-risk thoracic surgery with chest wall instability.

Patient Selection Criteria

Risk factors for sternal wound complications and mechanical instability:

Patient-related Risk Factors:

- Macromastia (large breast size)
- Obesity (BMI >30)
- Diabetes mellitus
- COPD (Chronic Obstructive Pulmonary Disease)
- Chronic cough or frequent respiratory distress
- Osteoporosis or bone fragility
- Current smokers
- Reduced mobility or frailty

Surgical & Medical Risk Factors:

- Use of bilateral internal mammary arteries for CABG
- Prolonged or complex sternotomy
- Previous myocardial infarction
- Preoperative renal insufficiency
- Re-operations or high-risk redo sternotomies
- Osteoporotic or fragile sternum

Risk Factors for Pulmonary Complications:

Patient-related Risk Factors:

- All the same as the risk factors for Sternal Wound Infections
- Pain
- Immobility Ineffective cough

Surgical & Medical Risk Factors:

- Atelectasis caused by anesthesia
- Neurological injury
- Diaphragmatic dysfunction
- IMA dissection
- Inflammatory response to CPB (Cardiopulmonary Bypass)
- Low core temperature
- Preoperative renal failure
- Previous myocardial infarction

Risk Factors for Postoperative Persistent Pain:

Patient-related (Psychosocial factors):

- Anxiety
- Depression
- Catastrophizing
- Illness perception
- Poor coping strategy
- Low sense of control
- Poor social support
- Expectations

Why Choose QualiBra Advanced ?

- **Non-opioid pain relief** for sore ribs and respiratory muscles.
- **Stabilization of the sternum** to prevent friction, inflammation and dehiscence.
- **Ease of breathing** through constant support of upper chest.
- **Increased comfort** for improved sleep and activity.
- **Combines sternal support and wound protection** in one device.
- **Keeps wound dry**, minimizing moisture-related infection risks.
- **May improve wound healing**, comfort, and postoperative confidence.
- **Designed specifically for fuller-sized women** undergoing median sternotomy.

References:

- El-Ansary D. et al., Clinical management and rehabilitation of persistent sternal instability, International Journal of Therapy and Rehabilitation, September 2015, Vol 22, No 9.
- Hjorth D. White paper (literature review): Evaluation of external chest supports based on the entire recovery process in and out of the hospital to avoid offset costs of long term complications and medications (2014). www.qualiteam.com.
- Meszaros K. et al, Risk Factors for Sternal Wound Infection After Open Heart Operations Vary According to Type of Operation. Ann Thorac Surg. 2016 Apr;101(4):1418-25. doi: 10.1016/j.athoracsur.2015.09.010. Epub 2015 Nov 30. PMID: 26652136.
- Ruppelch L & Schmid C. Deep Sternal Wound Complications: An Overview of Old and New Therapeutic Options. Open Journal of Cardiovascular Surgery 2013;6
- Baillet, R. et al. Impact of deep sternal wound infection management with vacuum-assisted closure therapy followed by sternal osteosynthesis: a 15-year review of 23,499 sternotomies. European J Cardio-thorac Surg 37 (2010) 880-887.
- Niraj G & Rowbotham DJ. Persistent postoperative pain: where are we now? British Journal of Anaesthesia 107 (1): 25-9 (2011)
- Gatti G. et al. Routine use of bilateral internal thoracic artery grafting in women: A risk factor analysis for poor outcomes. Cardiovasc. Revasc. Med. 2016;18:40-46. doi: 10.1016/j.carrev.2016.08.001.
- Copeland M. et al. Breast Size as a Risk Factor for Sternal Wound Complications Following Cardiac Surgery. Arch. Surg. 1994;129:757-759. doi: 10.1001/archsurg.1994.01420310076906.
- Biancari F. et al. Preoperative risk stratification of deep sternal wound infection after coronary surgery. Infect Control, Hosp. Epidemiol. 2020;41:444-451. doi: 10.1017/ice.2019.375.
- Itagaki S. et al. Bilateral internal mammary artery grafts, mortality and morbidity: An analysis of 1 526 360 coronary bypass operations. Heart. 2013;99:849-853. doi: 10.1136/heartjnl-2013-303672.



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