

# BioCUE<sup>®</sup>

Blood and Bone Marrow Aspirate (BBMA)  
Concentration System



## BioCUE® Blood and Bone Marrow Aspirate (BBMA) Concentration System

Designed to process a mixture of autologous whole blood and bone marrow aspirate, the **BioCUE® BBMA Concentration System** represents an evolution in this technique. The system includes all the components to **ASPIRATE** blood and bone marrow, easily **PROCESS** the disposable system, and produce an autologous PRP output\* to **HYDRATE** the surgeon's choice of autograft and/or allograft.

### PRP Output\* Concentrations

- 77.5% recovery of nucleated cells<sup>1</sup>
- 71% recovery of available platelets<sup>1</sup>
- 7.2x concentration of available platelets<sup>1</sup>
- 7.9x concentration of available nucleated cells<sup>1</sup>



## Technique Matters

When aspirating bone marrow with the BMA needle provided with the BioCUE® System, keep these best practices in mind:

The 6 holes at the distal tip allow for more efficient collection of aspirate from different angles within the bone inside the cortical wall.<sup>2</sup>

While maintaining a 1:5 ratio of ACD-A to BMA in the aspirating syringe, add a little extra anticoagulant to flush the BMA needle with ACD-A as well.

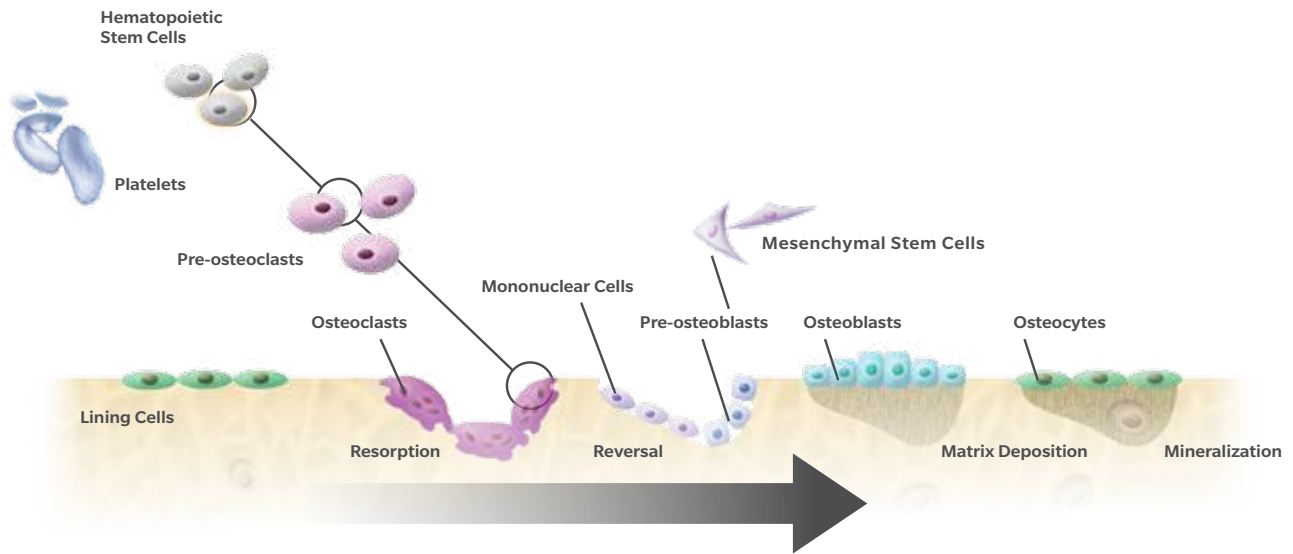


Six holes at the distal tip for better aspiration

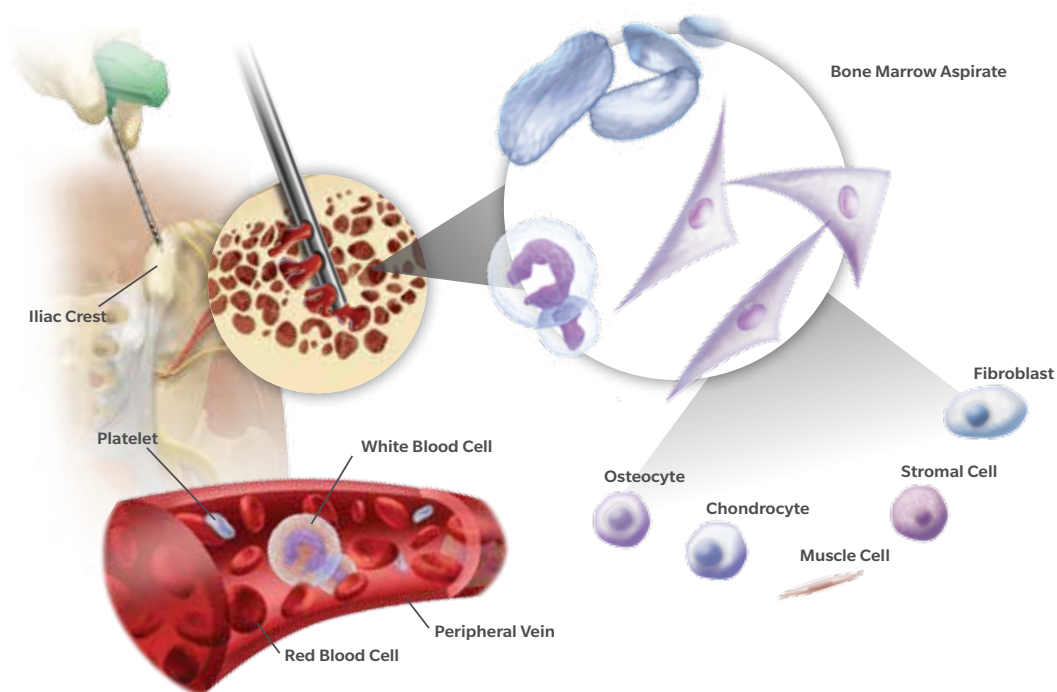
Each needle comes with a trocar point and blunt tip for surgeon options

## The role of whole blood and bone marrow bone remodeling

Whole blood and bone marrow contain many components which play a key role in bone formation. Cells are able to proliferate and differentiate into a number of different hard and soft tissues. Growth factors and signaling proteins from platelets stimulate the osteoprogenitor cells, as part of the bone remodeling process.<sup>3</sup>

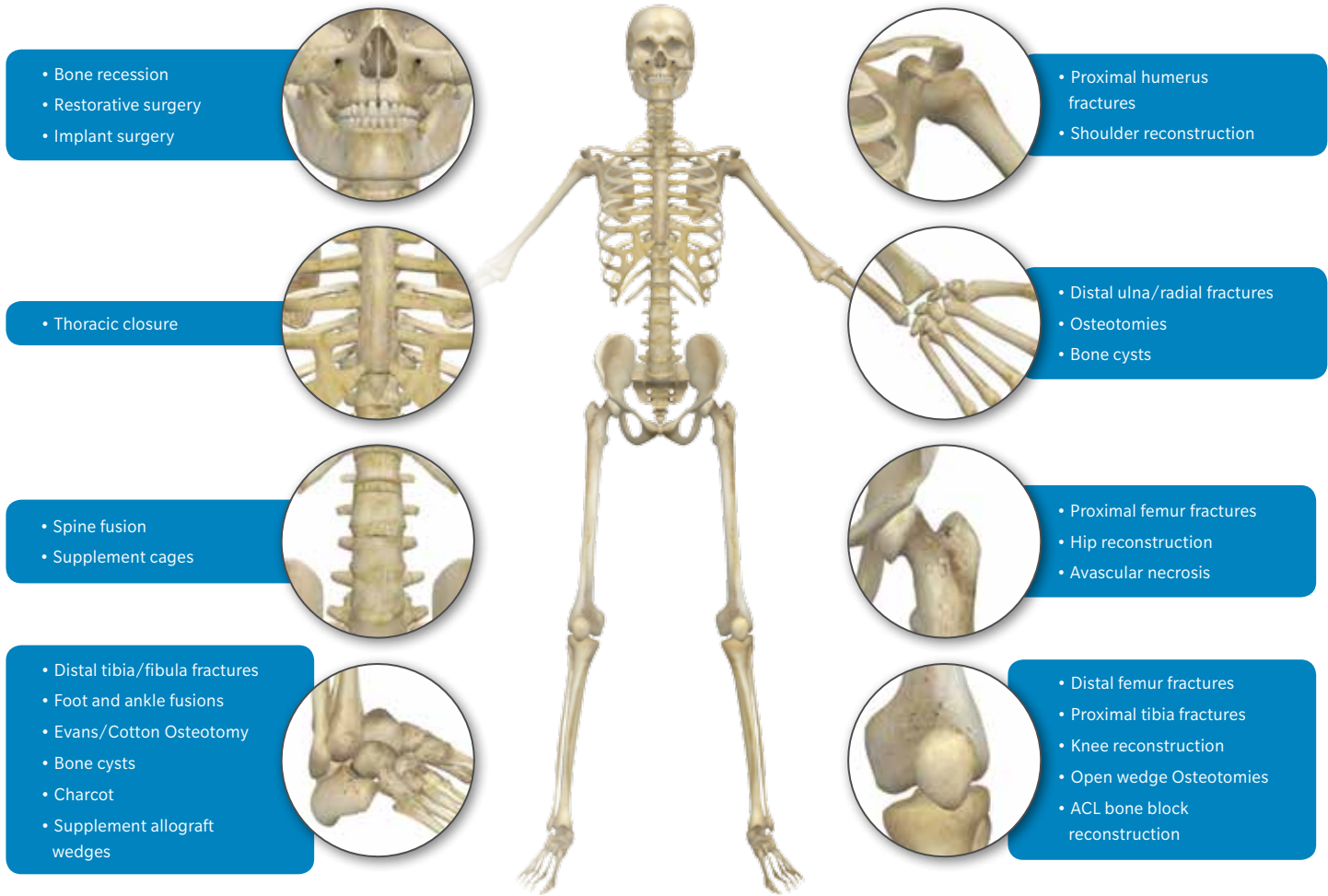


Platelet-rich plasma (PRP) prepared from a mixture of whole blood and bone marrow may contain higher levels of plasma free hemoglobin than platelet-rich plasma (PRP) prepared from whole blood.



# Examples of Autograft/Allograft Bone Grafting Applications

The PRP output\* from the BioCUE® BBMA Platelet Concentration System can be mixed with autograft and/or allograft bone prior to application to an orthopedic site.



\*The platelet-rich plasma (PRP) prepared by this device has not been evaluated for any clinical indications. The safety and effectiveness of this device for in vivo indications for use, such as bone healing and hemostasis, have not been established.

## References

1. Scheerlinck T. et. al. The Design Features of Cemented Femoral Hip Implants, JBS Br 2006 vol. 88-B no. 11 1409-1418
2. Malchau H, Herberts P, Garellick G, Söderman P, Eisler T, (2002) The Prognosis of Total Hip Replacement, Scientific Exhibition presented at the 69th Annual Meeting of the American Academy of Orthopaedic Surgeons, February 13-17, 2002, Dallas, USA

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