

stryker



# Golden duo

Bone dust optimization via the  
**2Flute precision round bur and  
Bone Vac autologous bone dust collector**



# Optimize bone dust quality and quantity

**The 2Flute precision round bur and Bone Vac autologous bone dust collector make a compelling combination.** Drilled bone dust contains viable cells with regenerative properties,<sup>1-6</sup> and the 2Flute precision round bur can help enhance fragment size, viability and osteoblastic expression.<sup>2</sup> Instantly captured by the Bone Vac, you'll get more gold standard autologous bone without the added effort.

**Orientation independent;**  
no need to keep upright

**May apply CPT 20936** (harvest of autograft from same surgical site)<sup>7</sup>

**Seamlessly integrates**  
with surgical suction

**Drape clip**  
secures device  
in sterile field

6mm 4mm

**13cc capacity filter;**  
reusable during case

Plunger for clean,  
**one push removal**

**Quick connect**  
end caps minimize  
suction interruption

## 2Flute bur with RIM Glide technology:

- Can positively impact bone dust size/surface area, cell count and cellular gene expression<sup>2</sup>
- Reduces chatter and increases precision<sup>8</sup>
- Enables rapid dissection with smooth performance<sup>8</sup>

## Multi-notch telescoping:

- Adjustable up to five exposure levels (up to 10mm)
- Can consolidate inventory items up to 5:1



## Cylindrical, malleable hydrated bone dust

- Cleanly ejects via plunger
- No inverting mesh baskets or scraping out loose bone dust
- Putty consistency enables efficient shaping and placement
- Universally compatible with other bone growth agents

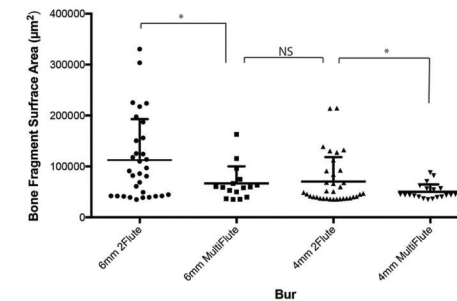
**"It's malleable... I can easily put that into the disc space."**

Spine surgeon

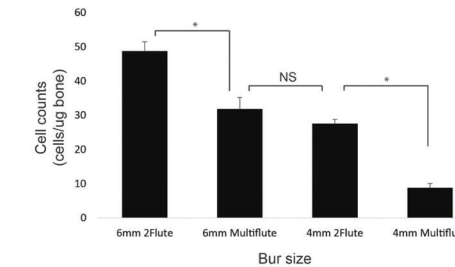
## Impressive results<sup>2</sup>

While Bone Vac autologous dust collection is effective with fluted or cutting burs (not fine shaping/diamond burs), the 2Flute precision round bur has shown inspired results. Here's an at-a-glance look at how bone dust and the 2Flute precision round bur can help optimize properties favorable to bone regeneration.

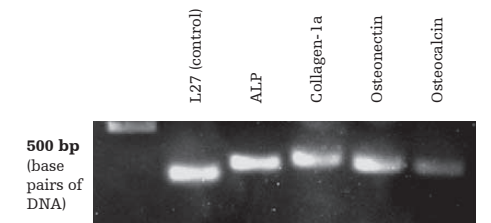
- Significantly larger bone paté fragment/surface area
- Significantly higher cell counts/viability
- Paté-derived cells harbor osteoblast markers (true for both 2Flute and multiflute burs)
- Cultured cells possess ability to generate new bone/osteoid and deposits were most intense around bone paté, suggesting proliferation is accelerated in its presence
- Paté-derived cell gene expression include multiple osteoblastic markers



The 6mm and 4mm 2Flute burs produced larger bone paté fragment surface area than multiflute counterparts. And the 4mm 2Flute achieved results similar to the 6mm multiflute, despite having a 50% smaller bur diameter. This demonstrates the importance of both bur diameter and design style/shape in generating larger fragments.<sup>2</sup>  
\* = significant finding; P<0.05. NS=nonsignificant



The 6mm and 4mm 2Flute burs generated higher viable cell counts than multiflute counterparts. And the 4mm 2Flute achieved results similar to the 6mm multiflute despite having a 50% smaller bur diameter, again demonstrating diameter and design style/shape are both integral factors.<sup>2</sup>  
\* = significant finding; P<0.05. NS=nonsignificant



Markers from bone paté derived cells are all highly expressed in osteoblasts, with osteocalcin being exclusively expressed by osteoblasts.<sup>2</sup>

# Go for gold

To see how this product combination can help optimize bone dust and your procedure, contact your Neurosurgical sales representative, call 800 253 3210 or visit [neurosurgical.stryker.com](http://neurosurgical.stryker.com).

Description	Part number
5400-800-000	Bone Vac (5 per box)
5820-009-030	3.0mm 2Flute precision round bur
5820-009-040	4.0mm 2Flute precision round bur
5820-009-050	5.0mm 2Flute precision round bur
5820-009-060	6.0mm 2Flute precision round bur
5820-009-075	7.5mm 2Flute precision round bur

1. Gao, R. et al. "Human Spinal Bone Dust as a Potential Local Autograft." *Spine*. (2018): 43.4
2. Roth, A. et al. "Improved Autologous Cortical Bone Harvest and Viability With 2Flute Otologic Burs." *The Laryngoscope*. (2017)
3. Gupta, A. et al. "Comparison of Osteogenic Potential of Calvarial Bone Dust, Bone Fragments, and Periosteum." *The Journal of Craniofacial Surgery*. (2009)
4. Shad, A. et al. "Use of the Solis cage and local autologous bone graft for anterior cervical discectomy and fusion: early technical experience." *Journal of Neurosurgery Spine*. (2005)
5. Patel, V. et al. "Histologic Evaluation of High Speed Burr Shavings Collected During Spinal Decompression Surgery." (2009)
6. Ichiyanagi, T. et al. "Isolation of mesenchymal stem cells from bone marrow wastes of spinal fusion procedure (TLIF) for low back pain patients and preparation of bone dusts for transplantable autologous bone graft with a serum glue." *BioScience Trends*. (2010)
7. Current Procedural Terminology 2020, American Medical Association. Chicago, IL 2020
8. Stryker data on file

## Neurosurgical

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