



### Key Investigator

Charles Sansur

### Field

Medical Device  
Spine

### Technology

- Cervical Mesh Cage
- Spinal Fusion
- Lateral Stabilizers
- Anterior Cervical
- Spinal Implants

### Advantages

Enhanced Stability  
Improved patient outcomes  
Versatile

### Status

Available for licensing

### Patent Status

US 11,234,831 B2

## Cloward-style cervical mesh cage with lateral stabilizers

### Summary

The disclosed technology is a Cloward-style cervical mesh cage with lateral stabilizers, which is designed for anterior cervical fusion and fixation in spinal surgeries. The device comprises a cylindrical body made of mesh-like material, which is inserted into the defect in the interbody disc, and lateral stabilizers that ensure its stability. The novel design of the Cloward-style cervical mesh cage, particularly the inclusion of lateral stabilizers, has the potential to offer better outcomes for patients undergoing spinal surgeries. It represents an innovative approach in the field of spinal implants and devices and could be an attractive option for surgeons in both established and emerging healthcare markets. The technology is detailed in the patent titled "US 11,234,831 B2", assigned to the University of Maryland.

### Market

The Cloward-style cervical mesh cage with lateral stabilizers is a medical device used for anterior cervical fusion and fixation. The global market for spinal implants and devices has been witnessing significant growth over the past few years, attributed to the increasing prevalence of spinal disorders, advancements in technology, and the growing geriatric population. According to a report by Fortune Business Insights, the global spinal implants and devices market size was valued at USD 11.59 billion in 2018 and is projected to reach USD 15.74 billion by 2026, exhibiting a CAGR of 3.9% during the forecast period.

The Cloward-style cervical mesh cage specifically addresses the need for anterior cervical fusion and fixation, a common procedure for patients with cervical disc diseases or injuries. The demand for such devices is expected to rise due to the increasing number of patients requiring spinal surgeries. The innovative design of the Cloward-style cervical mesh cage,

including lateral stabilizers, offers better outcomes for patients, making it an attractive option for surgeons. The United States, being one of the largest markets for medical devices, and with a growing number of spinal surgeries, could be a significant market for this technology. Emerging markets such as China and India, with their rapidly growing healthcare sectors, could also present opportunities for the adoption of this technology.

### Technology

The technology detailed in the patent titled US 11,234,831 B2 is a Cloward-style cervical mesh cage with lateral stabilizers, designed for anterior cervical fusion and fixation. The device is specifically engineered to decompress the interbody disc, which is a common requirement in spinal surgeries. The Cloward-style cervical mesh cage is comprised of a cylindrical body that is formed from a mesh-like material. This cylindrical body is intended to be inserted into the defect in the interbody disc. The device is equipped with lateral stabilizers, which are critical for ensuring the stability of the device once it is positioned within the spinal column.

The cylindrical body of the device is designed to be compatible with a cylindrical drill bit, which can be used to remove a portion of the interbody endplates. This is particularly useful in preparing the site for the implantation of the device. The mesh-like material of the cylindrical body allows for the integration of the device with the surrounding bone tissue, which is crucial for the long-term success of the implant. The lateral stabilizers are an innovative aspect of this technology, as they provide additional support and prevent the device from dislodging.

Compared to existing solutions in the market, the Cloward-style cervical mesh cage's unique design with lateral stabilizers provides enhanced stability and improved patient outcomes, making it a superior option for anterior cervical fusion and fixation.

### References

"Spinal Implants and Devices Market Size, Share & COVID-19 Impact Analysis" - Fortune Business Insights. [Spinal Devices Market Size, Share | Industry Forecast \[2019-2026\] \(fortunebusinessinsights.com\)](https://www.fortunebusinessinsights.com/spinal-devices-market)