

## **Hydrocephalus Shunts Market - Growth, Trends, Covid-19 Impact, and Forecasts (2023 - 2028)**

Market Report | 2023-01-23 | 117 pages | Mordor Intelligence

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### **Report description:**

The hydrocephalus shunts market is expected to register a CAGR of 8% during the forecast period.

The world has been facing the huge threat of COVID-19. As per the World Health Organization (WHO), COVID-19 is infectious, and most people infected by the virus experience mild to moderate respiratory illness. The COVID-19 outbreak had a significant impact on the hydrocephalus shunts market. The lockdown measures across the world resulted in decreased public mobility. They also impacted the clinical R&D studies and surgeries, as the procedures that were non-immediate were postponed to decrease the burden on healthcare infrastructure. As per the study published by the Neurology Online Journal, in 2020, COVID-19 could potentially be responsible for the patients developing new neurological disorders. The increase in new disorders resulted in a higher risk of in-hospital mortality and decreased likelihood of being discharged sooner. The study closely monitored 606 adult COVID-19 patients diagnosed with brain or other nerve-related medical conditions at any point of their infection. The injuries incurred ranged from temporary confusion due to low body-oxygen levels to stroke and seizures in serious cases. Such factors may positively influence the market studied.

The market's growth is attributed to the growing geriatric population, a rising prevalence of brain and neurological disorders, and the increasing adoption of advanced programmable valves. Neurosurgeons are inclining toward the latest technology shunts, antisiphon devices, and advanced programmable valves. Antisiphon devices help in avoiding siphon effects over cerebrospinal fluid. The increasing prevalence of brain disorders is leading to high demand for advanced shunts for treating hydrocephalus. For instance, according to an article published by the American Society for Biochemistry and Molecular Biology in March 2021, in the United States, about 2.8 million people sustain a traumatic brain injury (TBI) every year, with some 280,000 resulting in hospitalizations. Approximately 50,000 are fatal cases causing 155 deaths every day from TBI-related injuries, which are contributing to the market's growth. Product launches, product approvals, and an increased focus by several players on expanding

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product portfolios in neurosurgery are anticipated to boost the hydrocephalus shunts market. However, issues regarding the infections caused using hydrocephalus shunts may hamper the market's growth.

## Hydrocephalus Shunts Market Trends

### Hydrocephalus Catheters are Expected to Dominate the Market During the Forecast Period

Catheters are an important part of managing hydrocephalus, and certain patient populations are at greater risk of developing shunt infections. Catheters divert cerebrospinal fluid (CSF) from the site with an excess volume of CSF to a location within the body where the CSF will be absorbed.

The proximal catheter (ventricular or lumbar catheter) drains excess CSF from the ventricles or the lumbar spinal sac through rows of small holes at its origin. Distal catheters are typically placed in the abdominal cavity. However, they can also be placed in the heart, pleural cavity (lungs), and other suitable locations where CSF is drained into the bloodstream.

Technological advancements in these devices to combat the issues of biocompatibility, infection, and fouling are expected to contribute to the segment's growth. For instance, some shunt catheter is impregnated with antibiotics to reduce the incidence of infection during the post-operative period, such as the CODMAN BACTISEAL catheter and the Medtronic Ares catheter. The Ares antibiotic-impregnated catheters help reduce bacterial colonization.

In addition, current research focuses on the potential redesign of the hydrocephalus catheters, which may boost the segment's growth. For instance, in 2020, MIT researchers published a paper in the Journal of the Royal Society Interface, which proposes and validates a new design principle for hydrocephalus catheters. The design seeks to overcome a central challenge of these devices where they regularly become clogged. The new design principle could prevent catheter failure in brain shunts.

These products have attracted a significant amount of attention due to their potential prospects in the treatment of hydrocephalus and other brain disorders. Thus, such factors may boost the segment's growth significantly over the forecast period.

### North America is Expected to Hold a Significant Share in the Market During the Forecast Period

North America is expected to hold a significant market share due to the rise in the number of patients with hydrocephalus and the growing emphasis on the management of neurological disorders. As per the Hydrocephalus Association, in 2019, an estimated 1 million people in the United States were affected by hydrocephalus, and 1 in every 1,000 babies had hydrocephalus, thus leading to the adoption of hydrocephalus shunts and promoting the growth in this region.

The growth of the US market is attributed to the rising geriatric population, rising prevalence of brain and neurological disorders, and increasing adoption of advanced programmable valves. Such a large population base suffering from the disease is expected to drive the demand for these products. Product launches, approval, and increased focus by several players on their expanding product portfolios in neurosurgery will propel the US hydrocephalus shunts market. For instance, in 2020, Aesculap Inc., in partnership with Christoph Miethke GmbH & Co. KG, launched the M.blue Valve, the latest generation of hydrocephalus valve technology. Its unique gravitational technology is integrated with a fixed differential pressure unit in one valve, allowing for a simple, position-dependent solution.

Furthermore, increasing healthcare expenditure and the presence of well-established healthcare infrastructure are fueling the regional market's growth to a large extent.

## Hydrocephalus Shunts Market Competitor Analysis

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The hydrocephalus shunts market is moderately competitive and consists of several major players. In terms of market share, a few of the major players are currently dominating the market, including Christoph Miethke GmbH & Co. KG, Medtronic PLC, Sophysa, Tokibo Co. Ltd, Spiegelberg GmbH & Co. KG, B. Braun Melsungen AG, Integra LifeSciences Corporation, and Johnson & Johnson.

Additional Benefits:

The market estimate (ME) sheet in Excel format

3 months of analyst support

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