

# **Medical Grade Ultra High Molecular Weight Polyethylene (UHMWPE) Market Analysis By Application (Total Hip Replacement, Knee Replacement, Shoulder Replacement, Ankle Replacement, Small Joints) And Segment Forecast To 2024**

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## **Abstracts**

The global medical grade ultra high molecular weight polyethylene (UHMWPE) market is expected to reach USD 1.36 billion by 2024, according to a new report by Grand View Research, Inc. The effectiveness of the material in medical implants due to its superior properties such as high impact strength, low reactivity, and good flexibility is expected to drive the demand over the forecast period.

UHMWPE is a material having long chains which enable it to efficiently transfer load, thus making it suitable for implantation applications. The material is extremely pliable and has good impact strength. The material has less weight as compared to metals. All these properties have increased the demand for UHMWPE for medical applications in the recent past, and this trend is expected to continue over the forecast period.

Joint replacement surgeries use ultra high molecular weight polyethylene due to its effectiveness and versatility options. There has been a surge in demand for joint replacement surgeries across the globe. Rising geriatric population, changing lifestyle and lack of fitness are the contributing factors for this trend. This trend is expected to benefit the overall demand over next eight years.

Major industry participants are trying to develop innovative implantable products which have a longer life, are more comfortable, and give a strong mechanical performance.

The market is characterized by few companies occupying a dominant revenue share. Companies are taking steps to increase the product portfolio and production capacity to meet the rising demand.

Further key findings from the report suggest:

The global medical grade UHMWPE market demand was 60.9 kilo tons in 2015 and is expected to reach 204.8 kilo tons by 2024, growing at a CAGR of 15.0% from 2016 to 2024

Knee replacement had the highest penetration in 2015, and this trend is expected to continue over the next eight years. This scenario is due to a high number of knee replacement surgeries, thus catering to an increasing demand for UHMPWE

PET fibers are being replaced by UHMWPE fibers, thus creating avenues for reduced device sizes. Such advents in Research and Development are expected to benefit the overall market growth

North America dominated the global industry and accounted for over 35% of total demand in 2015. Existing medical infrastructure and demand for replacement surgeries particularly in the U.S. are the primary attributed reasons for this scenario

Major market participants include Honeywell, DSM N.V., LyondellBasell, Celanese Corporation, Quadrant, Braskem, and Asahi Kasei Chemicals Corporation.

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