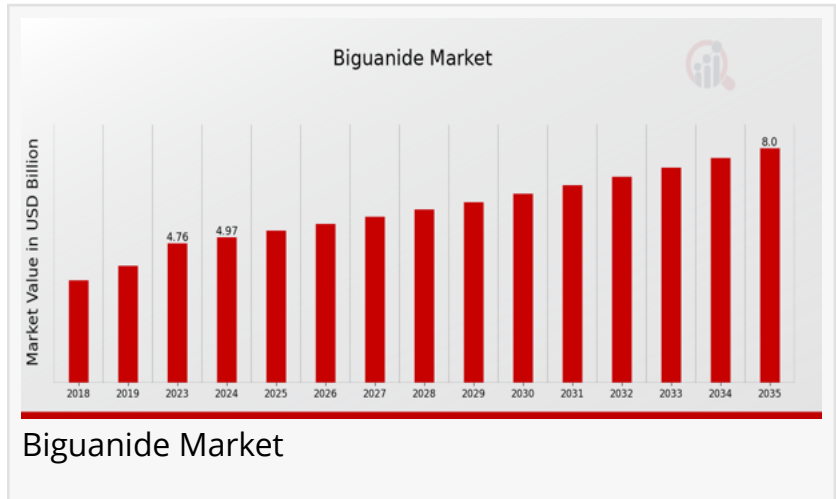


Biguanide Market Set to Grow at an Impressive CAGR of 4.43% Through 2035 | USD 8.0 Billion

Dominates the market due to high diabetes prevalence, advanced healthcare systems, and robust insurance coverage.

US, NY, UNITED STATES, April 21, 2025
/EINPresswire.com/ -- Biguanide Market: A Crucial Pillar in the Fight Against Diabetes and Beyond

Market Overview: Biguanides at the Forefront of Global Diabetes Care



The Biguanide Market plays a pivotal role in modern therapeutics, especially in the treatment of Type 2 diabetes mellitus. Biguanides, particularly metformin, are some of the most widely prescribed oral antidiabetic drugs due to their efficacy, safety profile, and affordability. With the global burden of diabetes reaching epidemic proportions, the demand for biguanide-based medications continues to rise steadily.

As of 2024, the [Biguanide Market Size](#) was estimated at 4.76 (USD Billion) in 2023. The Biguanide Market Industry is expected to grow from 4.97 (USD Billion) in 2024 to 8.0 (USD Billion) by 2035. The Biguanide Market CAGR (growth rate) is expected to be around 4.43% during the forecast period (2025 - 2035). This growth is driven by increasing diabetes prevalence, expanded clinical research into off-label uses of biguanides, and rising healthcare awareness worldwide.

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What Are Biguanides? Understanding Their Therapeutic Role

Biguanides are a class of oral hypoglycemic agents that lower blood glucose levels by:

Decreasing hepatic glucose production (gluconeogenesis)

Increasing insulin sensitivity

Enhancing glucose uptake by peripheral tissues

Metformin, the most popular biguanide, is considered the first-line treatment for Type 2 diabetes and is recommended by major guidelines including the American Diabetes Association (ADA) and the World Health Organization (WHO). Other biguanides such as phenformin and buformin have been largely discontinued due to safety concerns but remain relevant in historical and experimental contexts.

Expanding Applications: Beyond Diabetes Management

Although primarily used in diabetes care, biguanides have shown promise in several other medical domains, expanding their market appeal:

Anti-Aging and Longevity Research

Metformin is being extensively studied for its potential anti-aging properties. The TAME (Targeting Aging with Metformin) trial is exploring its ability to delay the onset of age-related diseases including cancer, cardiovascular disorders, and cognitive decline.

Oncology and Cancer Prevention

Emerging research indicates that biguanides may inhibit tumor growth by modifying AMPK/mTOR signaling pathways, making them candidates for adjuvant cancer therapy in breast, colon, and pancreatic cancers.

Polycystic Ovary Syndrome (PCOS)

Metformin is also widely prescribed to manage insulin resistance in women with PCOS, improving ovulatory function and metabolic health. This has expanded its market penetration in gynecology and endocrinology.

Market Drivers and Opportunities

Growing Diabetes Burden Worldwide

With over 537 million adults living with diabetes globally (IDF 2024), the demand for affordable and reliable therapies like biguanides is intensifying. Low- and middle-income countries are particularly crucial growth zones due to rising urbanization and sedentary lifestyles.

Cost-Effective and Generic Availability

Metformin's low cost and extensive availability as a generic drug contribute to its dominance in global prescriptions. Its affordability makes it accessible even in developing nations with

constrained healthcare budgets.

Combination Therapies on the Rise

Pharmaceutical companies are increasingly launching combination formulations (e.g., metformin with DPP-4 inhibitors or SGLT2 inhibitors) to improve therapeutic outcomes and adherence, opening up new revenue streams.

Challenges in the Biguanide Market

Despite their widespread use, biguanides face several hurdles:

Side Effects: Gastrointestinal issues, such as nausea and diarrhea, can impact patient compliance.

Contraindications: Patients with kidney impairment or heart failure may not be eligible due to the risk of lactic acidosis.

Market Saturation: Generic availability limits premium pricing and compresses margins for manufacturers.

Ongoing R&D to discover new biguanide derivatives with fewer side effects may offer future market differentiation.

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Regional Insights: Where Biguanides Are in High Demand

North America

Dominates the market due to high diabetes prevalence, advanced healthcare systems, and robust insurance coverage. Metformin remains a staple in diabetes treatment regimens across the U.S. and Canada.

Europe

Widely prescribed in EU countries with strong government support for chronic disease management. Innovations in extended-release formulations are also being developed in the region.

Asia-Pacific

The fastest-growing region due to the explosion of Type 2 diabetes cases in countries like India and China. Increasing healthcare access and government diabetes prevention programs are

driving metformin usage.

Middle East & Africa / Latin America

Gradual adoption is occurring as healthcare infrastructures improve. International aid and pharmaceutical partnerships play a role in making biguanides accessible in underserved populations.

Key Companies in the Biguanide Market

Par Pharmaceutical

Syngenta

Boai NKY Pharmaceuticals

Yifan Pharmaceutical

BASF

Lonza

Hawkins

Afton Chemical

Gan and Lee Pharmaceuticals

Hubei Sanonda

Zhejiang Jianye Chemical

Bachem

SABIC

Zhejiang Huakang Pharmaceutical

Biguanide Market Segmentation Insights

Biguanide Market Application Outlook

Pharmaceuticals

Agriculture

Cosmetics

Textiles

Biguanide Market Type Outlook

Metformin

Phenformin

Buformin

Biguanide Market Formulation Outlook

Tablets

Injectables
Solutions

Biguanide Market End Use Outlook

Hospitals
Homecare
Pharmacies

Biguanide Market Regional Outlook

North America
Europe
South America
Asia Pacific
Middle East and Africa

Key Inquiries Addressed in This Report:

- What factors are driving the demand for biguanide drugs worldwide?
- How is metformin influencing the anti-aging and cancer prevention sectors?
- Which regions present the highest growth potential for biguanide manufacturers?
- What are the leading companies and their strategies in the market?
- How do combination therapies impact the market share of biguanides?

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