

Infertility Treatment Devices Patent Landscape Report

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Report description:

Global Infertility Treatment Devices Patent Landscape Report 2024

Global Infertility Treatment Devices Industry Size

The global infertility treatment devices market was valued at USD 1.2 billion in 2023. It is expected to grow at a CAGR of 8.3% during the forecast period of 2024-2032, reaching a market value of USD 2.5 billion by 2032. The global infertility treatment devices market is dynamic, with the United States leading in patent filings. It holds over 3,500 patents focused on advanced technologies, procedural efficiency, and patient safety. Approximately 600 new patents were filed in the past year, highlighting ongoing innovation. Future growth is expected to be driven by advancements in AI integration for treatment personalisation and the development of eco-friendly, cost-effective devices.

Patent Landscape Report Coverage

This report provides a comprehensive analysis of the global infertility treatment devices patent landscape. It examines patent trends, key innovations, and emerging technologies in the field of infertility treatment. The report covers patent filings, patent grants, and leading companies, highlighting strategic advancements and innovations shaping the future of infertility treatment technology. It serves as an essential resource for stakeholders seeking insights into the intellectual property dynamics and competitive landscape of the infertility treatment devices industry.

Global Infertility Treatment Devices Patent Outlook

- The infertility treatment devices industry is driven by innovations in ergonomic designs, regulatory compliance, and sustainable materials. Devices like ovum aspiration pumps and certified incubators have seen over 5,000 patents filed. These advancements enhance user comfort, procedural safety, and cost-effectiveness, propelling future industry growth.
- Leading companies, such as Guangzhou Shanshan Medical Apparatus & Instrument Industry Co Ltd and Fertility Basics Inc, have collectively filed over 2,700 patents. They focus on smart monitoring systems, automation technologies, and advanced materials to drive innovation and maintain their competitive edge in the fertility treatment landscape.
- The United States leads with over 3,500 patents, driven by technological integration and automation. Europe, with 2,300 patents, emphasizes procedural efficiency and safety due to stringent regulations. Asia Pacific, led by China and Japan, has filed over 1,900

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patents, focusing on cost-effective, scalable solutions in the fertility technology sector.

Infertility Treatment Devices Introduction

Infertility treatment devices are critical tools in assisting individuals and couples to achieve successful pregnancies. These devices include sperm analyser systems, ovum aspiration pumps, and micromanipulator systems, designed to enhance the precision and success rates of fertility treatments. The patent landscape for infertility treatment devices reflects significant innovation driven by the demand for improved success rates, increased procedural efficiency, and the integration of advanced technologies and materials.

- Devices such as advanced ovum aspiration pumps are being developed with improved ergonomic designs and biocompatible materials. Over 2,000 patents have been filed focusing on enhancing user comfort and procedural safety, making these devices essential for efficient and patient-friendly fertility treatments.
- Compliance with international regulatory standards drives innovation in infertility treatment devices. Devices that meet stringent safety and efficacy standards, such as certified incubators and microscopes, have seen over 1,500 patents filed. These patents ensure the reliability and acceptance of devices across global regions, enhancing trust and adoption.
- The demand for eco-friendly and cost-effective fertility treatment solutions is leading to innovations in reusable and energy-efficient devices. Approximately 1,200 patents focus on sustainable materials and processes, driving the development of affordable treatment options that minimise environmental impact while maintaining high performance.

These drivers foster a dynamic patent landscape, promoting innovations that address patient comfort, regulatory standards, and sustainability in infertility treatments.

Global Infertility Treatment Devices Patent Segmentation Analysis

The report provides an in-depth analysis of the patents in this field by the following segmentation -

Analysis by Type

- Sperm Analyzer Systems
- Ovum Aspiration Pumps
- Sperm Separation Devices
- Micromanipulator Systems
- Imaging Systems
- Incubators
- Microscopes
- Cryo-systems
- Others

The patent segmentation in the infertility treatment devices industry includes sperm analyzer systems, ovum aspiration pumps, sperm separation devices, micromanipulator systems, imaging systems, incubators, microscopes, cryo-systems, and others. Among these, micromanipulator systems lead the patent landscape with over 2,500 patents granted historically and more than 400 new filings in the last year. This dominance is driven by innovations in automation and precision control. Future growth is expected as advancements focus on enhancing integration with other fertility technologies.

Analysis by Procedure Type

- Assisted Reproductive Technology
- Artificial Insemination
- Fertility Surgery
- Others

The patent segmentation by procedure includes assisted reproductive technology (ART), artificial insemination, fertility surgery, and others. Assisted reproductive technology dominates the patent landscape with over 1,800 patents granted historically and more than 300 new filings recently. This leadership is due to innovations aimed at improving procedural efficiency and success

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rates. Future growth is anticipated as advancements target personalised treatment approaches and integration with AI technologies.

Analysis by End User

- Fertility Clinics
- Hospitals and Surgical Clinics
- Research Institutes
- Others

The patent segmentation by end user includes fertility clinics, hospitals and surgical clinics, research institutes, and others. Fertility clinics lead the patent landscape with over 2,200 patents historically and more than 400 new filings in the last year. This dominance is due to innovations in specialised infertility treatment devices and protocols tailored for clinic settings, enhancing patient care and procedural success rates.

Infertility Treatment Devices Patent Jurisdiction Analysis

The global patent landscape for infertility treatment devices is characterised by significant activity across key regions, including the United States, Europe, and Asia Pacific. In the United States, over 3,500 patents have been filed, driven by major companies' focus on integrating advanced technologies and automation. In Europe, particularly in Germany and the UK, over 2,300 patents emphasize innovations in procedural efficiency and patient safety, influenced by stringent regulatory standards. The Asia Pacific region, notably China and Japan, has filed over 1,900 patents, reflecting a dynamic and expanding healthcare technology landscape, with an emphasis on cost-effective and scalable solutions.

Patent Profile of Key Companies

The patent landscape for infertility treatment devices is shaped by several key companies driving innovation and securing intellectual property. Here is an overview of their patent activities.

Guangzhou Shanshan Medical Apparatus & Instrument Industry Co Ltd

Guangzhou Shanshan Medical Apparatus & Instrument Industry Co Ltd, based in Guangzhou, China, holds over 1,500 patents related to infertility treatment devices, with approximately 200 patents in progress. The company focuses on innovations in ergonomic designs and advanced material technologies, aiming to improve fertility treatment outcomes and patient safety.

Fertility Basics Inc

Fertility Basics Inc., headquartered in San Diego, California, has filed over 1,200 patents in the infertility treatment devices sector, with around 150 patents currently in progress. The company specialises in smart fertility monitoring systems and automated treatment technologies, enhancing patient comfort and care efficacy through strategic patent filings.

Other key players in the industry include Vertex Pharma, Genentech Inc., and Merck Sharp & Dohme.

Key Questions Answered in the Global Infertility Treatment Devices Patent Landscape Report

- What are infertility treatment devices, and why are they important in reproductive healthcare?
- What is the current state of the global patent landscape for infertility treatment devices?
- Which companies are leading patent filings in the infertility treatment devices industry?
- What are the key drivers of patent activity in infertility treatment technologies?
- How do innovations in ergonomic design and material composition impact infertility treatment devices?
- What role does regulatory compliance play in the development of infertility treatment devices?
- Which regions are most active in patent filings for infertility treatment devices, and why?
- How are patents for smart systems and automation influencing the infertility treatment landscape?
- What future trends are anticipated in the infertility treatment devices patent landscape?

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- How do jurisdictional differences affect the patent landscape for infertility treatment devices?
- What challenges do companies face in securing patents for infertility treatment technologies?
- How are patents for devices used in fertility clinics different from those for research institutes?
- What impact does sustainability have on patent filings in the infertility treatment devices industry?
- How is the competitive landscape in the infertility treatment devices industry shaped by patent activities?

Reasons to Purchase this Report

This report offers an in-depth analysis of the patent landscape, covering key trends, technological advancements, and regional insights. It provides detailed segmentation and highlights areas of significant innovation and activity. By examining leading companies' strategies and patent portfolios, the report elucidates competitive dynamics and emerging opportunities. Stakeholders will gain valuable information for strategic decision-making, ensuring they stay ahead in the evolving industry. This comprehensive coverage makes it an essential resource for understanding the industry's future direction.

Table of Contents:

- 1 Introduction
- 2 Executive Summary
- 3 Global Infertility Treatment Devices Market Overview
 - 3.1 Global Infertility Treatment Devices Market Historical Value (2017-2023)
 - 3.2 Global Infertility Treatment Devices Market Forecast Value (2024-2032)
- 4 Global Infertility Treatment Devices Market Segmentation
 - 4.1 Global Infertility Treatment Devices Market (2017-2032) By Type
 - 4.1.1 Market Overview
 - 4.1.2 Sperm Analyzer Systems
 - 4.1.3 Ovum Aspiration Pumps
 - 4.1.4 Sperm Separation Devices
 - 4.1.5 Micromanipulator Systems
 - 4.1.6 Imaging Systems
 - 4.1.7 Incubators
 - 4.1.8 Microscopes
 - 4.1.9 Cryo-systems
 - 4.1.10 Others
 - 4.2 Global Infertility Treatment Devices Market (2017-2032) by Procedure Type
 - 4.2.1 Market Overview
 - 4.2.2 Assisted Reproductive Technology
 - 4.2.3 Artificial Insemination
 - 4.2.4 Fertility Surgery
 - 4.2.5 Others
 - 4.3 Global Infertility Treatment Devices Market (2017-2032) by End User
 - 4.3.1 Market Overview
 - 4.3.2 Fertility Clinics
 - 4.3.3 Hospitals and Surgical Clinics
 - 4.3.4 Research Institutes
 - 4.3.5 Others
- 5 Global Market Dynamics
 - 5.1 Market Drivers and Constraints
 - 5.2 Porter's Five Forces Analysis
 - 5.3 PESTEL Analysis

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- 5.4 Industry Events, Initiatives, and Trends
 - 5.5 Value Chain Analysis
 - 6 Global Infertility Treatment Devices Patent Landscape Analysis
 - 6.1 Patent Distribution by Publication Year
 - 6.2 Patent Distribution by Application Year
 - 6.3 Patent Distribution by Priority Year
 - 6.4 Analysis by Type of Patent
 - 6.4.1 Granted Patents
 - 6.4.2 Patent Application
 - 6.4.3 Amended Application
 - 6.4.4 Search Report
 - 6.5 Analysis by Legal Status
 - 6.5.1 Active
 - 6.5.2 Pending
 - 6.5.3 Expired/Discontinued
 - 6.6 Analysis by Patent Jurisdiction
 - 6.7 Analysis by Patent Age
 - 6.8 Analysis by Cooperative Patent Classification (CPC) Codes
 - 6.9 Average Time to Publish a Patent
 - 6.9.1 By Entities
 - 6.9.2 By Jurisdiction
 - 6.9.3 By Technology
 - 6.10 Analysis by Type of Entity (Academic and Non-Academic)
 - 6.11 Analysis by Top Applicants
 - 6.12 Analysis by Top Inventors
 - 7 Global Infertility Treatment Devices Patent Analysis by Technology
 - 7.1 Total Patents by Top Technologies
 - 7.2 Time Evolution of Patents by Technology
 - 7.3 Emerging Technologies
 - 7.4 Patent Segmentation, By Type
 - 7.4.1 Time Evolution by Number of Patents
 - 7.4.2 Time Evolution by Number of Patent Families
 - 7.4.3 Analysis by Type of Entity (Academic vs Non-Academic)
 - 7.4.4 Analysis by Top Applicants
 - 7.4.5 Analysis by Top Inventors
 - 7.5 Patent Segmentation, By Procedure Type
- *Complete technology list will be provided in the report.
- 8 EMR Patent Valuation Analysis
 - 8.1 Assessment Methodology
 - 8.2 High Value Patents
 - 8.3 Medium Value Patents
 - 8.4 Low Value Patents
- 9 Global Infertility Treatment Devices - Top 10 Players Patent Analysis
 - 9.1 Top 10 Entities by Number of Patents
 - 9.2 Analysis by Publication Year
 - 9.3 Analysis by Application Year
 - 9.4 Analysis by Priority Year

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- 9.5 Analysis by Type of Patent
- 9.6 Analysis by Jurisdiction
- 9.7 Analysis by Cooperative Patent Classification (CPC) Codes
- 9.8 Analysis by Source of Innovation
- 9.9 Analysis by Forward and Backward Citations
- 9.10 Analysis by Legal Status
- 9.11 Analysis by Patent Age
- 9.12 Analysis by Key Inventors
- 9.13 Entity Dynamics
 - 9.13.1 Analysis by Type of Player (Academic vs Non-Academic)
 - 9.13.2 Analysis by Collaboration
 - 9.13.3 Analysis by Technology
 - 9.13.4 Newcomers
 - 9.13.4.1 Start-up Companies
 - 9.13.4.2 Established Companies
- 10 Patent Profile of Key Players
 - 10.1 Guangzhou Shanshan Medical Apparatus & Instrument Industry Co Ltd
 - 10.1.1 Product Portfolio
 - 10.1.2 Patent Portfolio by Patent Families
 - 10.1.3 Time Evolution of Patents
 - 10.1.4 Geographical Patent Coverage
 - 10.1.5 Patent Analysis by Technology
 - 10.1.6 Patent News and Developments
 - 10.1.7 Financial Analysis
 - 10.1.8 SWOT Analysis
 - 10.2 Fertility Basics Inc
 - 10.3 Vertex Pharma
 - 10.4 Genentech Inc
 - 10.5 Merck Sharp & Dohme
- 11 Future Trends
- 12 Global Infertility Treatment Devices Landscape (Additional Insight)*
 - 12.1 Global Infertility Treatment Devices Market: Developers Landscape
 - 12.1.1 Analysis by Year of Establishment
 - 12.1.2 Analysis by Company Size
 - 12.1.3 Analysis by Region
 - 12.2 Global Infertility Treatment Devices Market: Product Landscape
 - 12.2.1 Analysis by Type
 - 12.2.2 Analysis by Procedure Type

*Additional insights are not provided in the standard report.

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