

OCTOBER - 01 - 2019

# MED TECH

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**OUTLOOK**

Diabetes  
Care   
EDITION

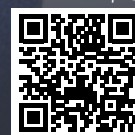


Jesse Kim,  
Founder & CEO

# EOFLOW

## Wearable 'Artificial Pancreas'

\$15





James, a 19-years-old student, was on his way back home from the university when all of a sudden he began to sweat profusely. Within seconds, everything around him started to spin, and he soon lost consciousness. The next thing he knew, he was being helped by pedestrians to get back on his feet. So what had happened? It was later discovered that James had diabetes and had missed taking his dose of insulin for the day, which caused the blackout.

A scenario like this leads us to one question: "Is there a technology that could help people like James not only monitor their blood glucose levels constantly but also provide the necessary insulin doses when needed?"

With EOFlow's advanced and user-friendly wearable drug delivery solution, EOPatch, the answer is yes! By automatically monitoring blood glucose levels and delivering appropriate insulin doses as needed, the South Korea-based medical devices company's innovative technology streamlines diabetes care management. Jesse Kim, founder and CEO of EOFlow, says, "Diabetes mellitus is the world's fastest-growing chronic condition that affects people of all age groups." A recent report by Centers for Disease Control and Prevention (CDC) reveals that more than 100 million people (including kids) in the U.S. are living with diabetes or prediabetes and nearly 30.3 million Americans (at least one in ten) are diagnosed with this chronic health condition. People with diabetes are at an increased risk of several short-term and long-term health complications, including excessive weight loss, hypoglycemia, ketoacidosis, vision loss, heart disease, stroke, kidney failure, and even amputation of toes, feet or legs. Hence, it is highly important for diabetic patients to follow a stringent routine where they must consistently monitor their diet, lifestyle, and blood glucose levels. However, keeping track of everything

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## Wearable 'Artificial Pancreas'

By Alex D'souza

Jesse Kim,  
Founder & CEO







continuously can be challenging. This is where a small size, lightweight, power-efficient, and cost-effective wearable like EOPatch is breaking new grounds. “With this unique offering, our mission is to improve the quality of life and ultimately contribute to making the world a better place to live,” mentions Kim. The disposable insulin pump is currently available in South Korea and is slated to hit the U.S. market by 2020.

### Simple, Easy-to-Use Disposable Insulin Patches

EOPatch is a first-of-its-kind solution that allows open connectivity to third-party devices such as continuous glucose sensors (CGMS) to autonomously control insulin infusion to ensure that a person’s blood glucose level stays within the normal range. The wearable pump unit comes with an empty reservoir, a small syringe, and a controller—an advanced diabetes manager (ADM). Using the syringe, a user has to fill the patch with insulin and adhere it on their skin. Then, the user has to activate the ADM, a smartphone-like touch screen that constantly monitors and updates a patient on their blood glucose levels. The ADM also offers other important information, such as patch insulin infusion status, history of the previous dosage, use time, battery status, and abnormal pump conditions, such as occlusion. It is this user-friendliness and ability to offer real-time data that makes EOPatch a better alternative to the traditional insulin pens and blood glucose meter, which only tests a drop of blood released through a needle prick of the finger. Furthermore, a factor that truly differentiates the patch is its ability to last for longer durations. “An individual can wear EOPatch for up

to four days,” states Kim. In this way, EOFlow leads to a total cost saving of approximately 35 percent over other competitors by reducing the number of devices a diabetic person uses per year.

### Artificial Pancreas in the Making

Extending the capabilities of EOPatch, EOFlow has created EOPatch X, a ‘smarter’ EOPatch that can connect with a third-party glucose sensor to behave as ‘Artificial Pancreas’ (AP) solution. EOPatch is a two-part AP solution—a wearable insulin pump and a wearable continuous glucose sensor. This new device is set for launch in the U.S. market in 2021. Furthermore, EOFlow is also developing a new closed-loop, automated insulin delivery system that combines a continuous glucose monitor with an insulin patch pump, EOPancreas. This integrated wearable artificial pancreas will automatically and precisely administer adjusted insulin doses to patients through a smart phone app. EOPancreas has received “Breakthrough Device Designation” by the U.S. Food and Drug Administration and is looking for an anticipated commercial launch sometime in 2022.




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### Fostering a Safe, Healthy Lifestyle

Collaboration and sharing of knowledge has always been a core competence of EOFlow. “Despite diabetes being a life-threatening health issue, there is a general lack of awareness about the disease and that is where our training helps,” states Kim. The company imparts exclusive training sessions to healthcare professionals so that they can operate EOFlow’s wearable device without any technical assistance.

As part of EOFlow’s continued mission to create a cost-effective device that frees diabetic patients from the daily toils of medicines, the organization is planning on designing a larger reservoir with a higher delivery rate to accommodate the broader needs of the market. Together with that, EOFlow is also focusing on the development of non-insulin products. In the near future, the company hopes to be acknowledged as one of the leading medical devices firms globally. With the wearable market booming and proving to be a boon for the healthcare industry, EOFlow is on the right track to achieving this goal. 

DIABETES CARE SPECIAL

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## OUTLOOK

### TOP 10 DIABETES CARE SOLUTION PROVIDERS - 2019

The exponential growth of diabetic population across the globe along with the increasing healthcare expenditure is creating a demand for the development of improved and convenient devices in diabetes care. However, due to the lack of effective treatments for this disorder, many manufacturers are continuously trying to develop new drugs and more convenient drug delivery devices. Wearable devices are now leveraging AI algorithms and power of IoT to monitor and supply insulin into their body as and when they need it. Furthermore, Cloud-based digital diabetes management apps for checking weight, diet, blood glucose levels can transmit patient data to a clinician’s computer or mobile device in real-time.

As the Healthcare Sector follows the trails of technological progression, Diabetes care is entering its next phase of evolution and has set the wheels in motion for businesses all over the world to exploit those innovations. This edition of Medtech Outlook features companies that are at the forefront of offering Diabetes Care solutions like Ascensia Diabetes, Xeris Pharmaceuticals, Eoflow, GlucoMe and many more. MedTech Outlook ‘s presents to you—“ Top 10 Diabetes Care Solution Providers - 2019”.



**COMPANY:**  
EOFlow

**WEBSITE:**  
eoflow.com

**KEY PERSON:**  
Jesse Kim  
Founder & CEO

**DESCRIPTION:**  
A South Korea-based medical devices company that offers innovative technology to streamline diabetes care management