

Heart's Ideal Performance



The human heart is the primary motor that keeps the human body functioning. Whenever there is a problem with the heart, its performance decreases resulting in a negative impact on other parts of the body as well. For example, if the heart's ability to pump blood is restricted, it can hamper the performance of the heart and can also affect other parts of the body. The condition, known as systolic heart failure, is one of the most common cardiac disorders. It is thus important to ensure an individual's heart performs properly.

Researchers at Rutgers Robert Wood Johnson Medical School used Omecamtiv Mecarbil, or OM, a new drug treatment for systolic heart failure that they knew targeted the cardiac motor protein they had already been researching and that activates the contractions of the heart. They believed that if the drug binds to the cardiac motor, it could modify and improve the performance of the cardiac muscle thus enabling it to pump the sufficient amount of blood throughout the body.

"Identifying the structure of the cardiac motor after OM binds to it is important to understanding the mechanism of the drug's action in improving the performance of the heart's pumping ability and accurately treating systolic heart failure," said Winkelmann, who is a professor of pathology at Robert Wood Johnson Medical School. "The capacity of OM to 'fine tune' the heart's performance may be an indication of its ability to treat heart disease on a broader scale."

Source: Rutgers Robert Wood Johnson Medical School

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