

New mathematical model could aid studies of cardiac muscle

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Researchers have developed a new mathematical model that may provide a simpler and better way of predicting ventricular function during the cardiac cycle. The new model could help researchers improve treatment options for patients with heart disease. The article appears in the August issue of the *Journal of General Physiology*.

Previous mathematical models of striated muscle—including the Huxley scheme developed in 1957, as well as more recent models—have been quite complex and less suitable for routine analysis. Now, Steven Ford and co-workers (Washington State University) present a much simpler model comprising only five parameters, which they recommend for routine use in studies of [cardiac muscle](#).

According to Kenneth Campbell (University of Kentucky) in a Commentary accompanying the paper, Ford et al.'s model may "be the best contractile system yet to integrate into multi-scale models of working hearts."

More information:

Campbell, K.S. 2010. *J. Gen. Physiol.* [doi:10.1085/jgp.201010497](https://doi.org/10.1085/jgp.201010497)

Ford, S.J., et al. 2010. *J. Gen. Physiol.* [doi:10.1085/jgp.201010467](https://doi.org/10.1085/jgp.201010467)

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