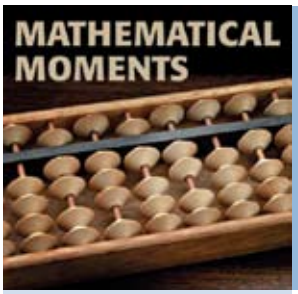

Improving Stents

Stents are expandable tubes that are inserted into blocked or damaged blood vessels. They offer a practical way to treat coronary artery disease, repairing vessels and keeping them open so that blood can flow freely. When stents work, they are a great alternative to radical surgery, but they can deteriorate or become dislodged. Mathematical models of blood vessels and stents are helping to determine better shapes and materials for the tubes. These models are so accurate that the FDA is considering requiring mathematical modeling in the design of stents before any further testing is done, to reduce the need for expensive experimentation.

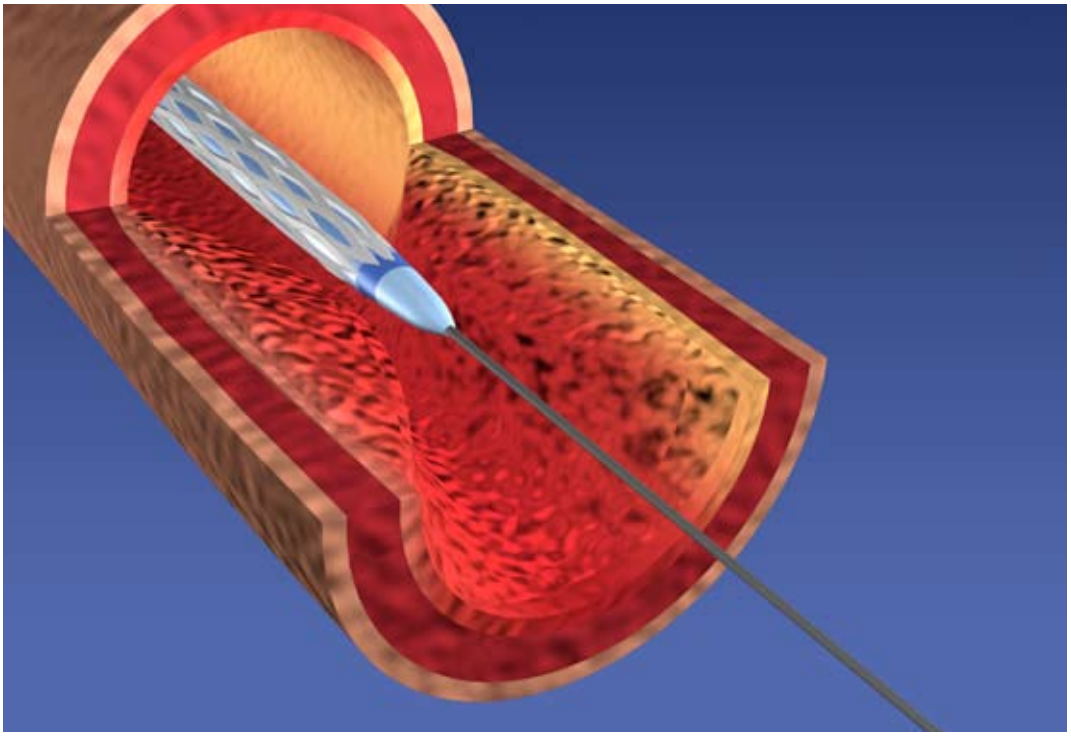

Image courtesy of Michel Leconte.

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