

Study: DNA stretched winds more tightly

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U.S. biochemists say they've found if the DNA molecule's helical structure is stretched, it actually winds itself more tightly.

Although the proposal sounds counterintuitive, Carlos Bustamante and colleagues at the University of California-Berkeley say the DNA double helix winds more tightly when gently stretched. Only if it is tugged at hard does its spiral begin to unfurl.

That, the researcher said, is in contrast to nearly all other helical structures -- such as an old-fashioned candy wrapper, for instance, which unwinds when you pull on its ends.

The scientists made their discovery by studying single DNA molecules with tiny stretching forces applied to them. The discovery may also explain real-life examples of cellular DNA structures that seem to be both taut and yet tightly wound.

The study, now available online, is to appear in a future issue of the journal *Nature*.

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