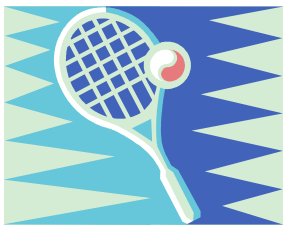
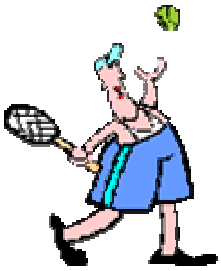
# What is the Product?

Head® Nano Titanium Tennis Racquet

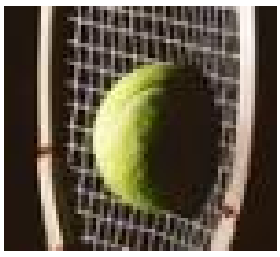




# What's Nano about it?

- The racquet uses nano-sized particles to develop a nano and titanium weave.
- Head indicates that the racquets are made at the molecular level.

# How does it work?

- Titanium is often used in tennis racquets because it provides high stiffness with lighter weight.
- Titanium is not used alone but is typically mixed in a composite which often contains graphite. Graphite's strength is dependent on the orientation of its fibers.
- Head has developed a proprietary method to weave the titanium into the composite to provide superior stiffness. When a ball hits a racquet, the racquet "bends" which absorbs energy. With greater stiffness, there is less energy absorbed by the racquet and more energy returned to the ball.
- The Ti weave provides a "stronger, faster and more stable racquet.



# Does it have other applications?

• Sporting good companies are offering several products that utilize nanotechnology. Below is a list of tennis rackets that use titanium and/or a form of carbon ($C_{60}$) commonly called carbon nanotubes (CNT). CNT provide strength and are lightweight

- •Yonex® NanoSpeed® RQ Tennis Racquests
- •Wilson® nCode® Tennis Rackets
- •Babolat® NS™ Drive Tennis Racket
- •Babolat® NS™ Tour Tennis Racket

## Price

- Around $70 to $80 depending on model.

## Glossary

- Titanium - A strong, low-density, highly corrosion-resistant, metallic element used in strong light-weight materials.
- Composite - A material in which two or more distinct substances are combined to produce a material with different structural or functional properties.
- Proprietary - private; owned by a private corporation under a trademark or patent.
- Graphite – a form of carbon used in pencils, lubricants, and paints
- Carbon nanotube – a form of carbon which is cylindrical in shape and in the nanometer size range. They are extraordinarily strong and have unique electrical properties.
- Absorb - To take (something) in.

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