Nanotechnology and its Medical Benefits

by Eric Butkus

 \rightarrow Nanotechnology will one day be the way most things are produced. Right now, major private and publicly funded research projects are underway in the way of producing the technology to make nanomachines. Right now, all our means of production are bulky and cumbersome, comparable to making something out of LEGOS with boxing gloves on your hands. These methods prove to be unable to supply the elegance needed to produce machines on the molecular level. Using a method similar to a Russian doll, the newest idea in the production of nanomachines is to build a machine, which will build a machine smaller than itself, which will build another machine smaller and so on. This idea suggests the production of nanofactories. Nanotechnology in medicine will be one of the greatest breakthroughs in medicine ever.



By directly moving atoms to where you want them, machines could be made with infinite precision. At the moment, a promising new component is being produced and perfected: the carbon nanotube. By rolling up a single atom layer of graphite, called graphene, you can make a seamless cylinder capable of carrying an electric current. By producing them with a non-covalent bridge, this tube could adhere to any of its applications. On the market right now are single walled nanotubes and double walled nanotubes. The double walled tubes presumably can handle more disruption and carry a current better.

This is extremely important if this carbon tube was to be used as a vehicle for nanoprobe technology inside the human body.



To be able to control miniature robots inside the human body may sound like science fiction, but its slowly becoming a reality. This technology was first envisioned in the late 1950's, and has made little progress since, but we can expect this technology to become a reality very soon, thanks to modern production techniques. Nanoprobes inside the body can help to remedy or effectively prevent any ailment that a person would suffer...from artery blockages to broken bones to even reversing Alzheimer's.



Sources: http://www.foresight.org/ http://www.crnano.org/ http://www.nano.gov/ http://www.zyvex.com/ http://en.wikipedia.org/