

Good essay about the hypodermic syringe

[Technology](#), [Development](#)



The hypodermic syringe was developed independently by French veterinary surgeon Charles Gabriel Pravaz and Scottish doctor Alexander Wood in 1853 (Kravetz 2614; Olukoga, Bolodeoku and Davidson 571). They both modified the invention of Francis Rynd, a special instrument much like the modern hypodermic syringe but did not have a plunger (Olukoga et al. 571). Its invention revolutionized the field of medicine, allowing intravenous delivery of drugs, vaccines and other substances into the human body. It has also since been widely used for the extraction of fluids, such as blood, and tissue (Gill and Prausnitz 725).

The mechanism of the hypodermic syringe has not changed since its invention more than 150 years ago, but its materials have been modified for specific use, comfort and safety. The barrel of the syringe was initially made of metal but it was changed to glass to allow the physician to view the amount of liquid left. Modern syringes are made of plastic with a rubber piston, which effectively seals the contents, and are disposed of after each use. Single use of the needle or the syringe prevents the spread of diseases (Hauri et al. 7). Moreover, needles of fine diameters have been developed to reduce pain, especially for frequent injections such as insulin for diabetic patients (Gill and Prausnitz 727).

The hypodermic syringe has led to the development of various medical devices and equipment (Okulago et al. 571). It has also found use in scientific laboratories and other fields. People have found many other ways of using syringes such as refilling ink of printer cartridges or for feeding small animals (without the needle). In non-medical use, the syringe is a handy tool for containing and expelling liquids with relative ease and less mess. Thus,

the hypodermic syringe is a tool that is not only medically important but is versatile as well.

Works Cited

Gill, H. S. and M. R. Prauznitz. “ Does Needle Size Matter?” *Journal of Diabetes Science and Technology* 1. 5 (2007): 725-729.

Hauri, A., Armstrong, G., and Y. Hutin. “ The global burden of disease attributable to contaminated injections given in health care settings.” *International Journal of STD & AIDS* 15. 4 (2004): 7-16.

Kravetz, R. E. “ Hypodermic syringe.” *The American Journal of Gastroenterology* 100. 12 (2005): 2614-2615

Olukoga, A. O., Bolodeoku, J., and D. Donaldson. “ Laboratory instrumentation in clinical biochemistry: an historical perspective.” *Journal of the Royal Society of Medicine* 90 (1997): 570-577.