



Your Health

From Bark to Daffodils: The Next Level©

by Jack Grierson

Welcome back to Your Health, provided by themedicalfrontier.com: Medical news, simplified.

Today's medications are filled with extremely hard to pronounce names like Rituximab or Methylprednisolone. But how did we manage to get to this stage where we develop highly advanced medications on a large scale? In the past, you would eat some chalk or rub Aloe Vera on your skin – how did we get to where we are today?

Of course, medicine began by using nature and the materials we had available around us. Over the years we have found ways to increase the effect of these materials by increasing their potency. Potency in biological terms is a measurement used to explain how effective a drug can be in the body. A nice way of explaining what drug potency is, is by using two different drugs as an example. A very potent drug only needs a very small concentration in the body to cause the effect. A poorly potent drug has to have very high concentrations to get the effect you need in the body. Many drug development companies have big issues with potency as you can only put so much into a pill if the drug isn't very potent. Of course you can always have the problem of the drug being **too** potent, which can cause toxic levels in the blood, and the pharmaceutical company has to work out how to put such a small amount into the pill (which can be hard when you're making a pill formulation).

So what are some examples of drugs that began naturally and have since been developed into highly potent, effective drugs?

One of the most common drugs you have more than likely heard of is Aspirin. It's very good at relieving headaches, reducing fever or bringing down inflammation. It may shock you to find out that Aspirin originally started out as willow leaves and tree bark. Today we know how to synthesize it artificially and it is one of the most widely used drugs in the world.

As we discussed last week, Penicillin is an extremely important antibiotic used to kill harmful bacteria. Alexander Fleming accidentally discovered this when it appeared as a fungus. Since then, we have been able to use what we have learned from Penicillin to create other antibiotics that can kill bacteria like it in the lab.

Finally, who would have thought that the daffodils growing in your garden could be used to treat mental disorders like Alzheimer's disease? Or that the highly addictive medicines used for pain, like Morphine, came from the poppy flower seed? Did you know that garlic is just as good at cleaning your teeth as toothpaste is but we don't use it due to the smell?

Medicine and nature go hand in hand and one could not live without the other.

This week's advice: Try to appreciate the beauty in both nature and medicine.

Thanks again for listening to Your Health on EnglishWaves, provided by The Medical Frontier: Medical news, simplified.