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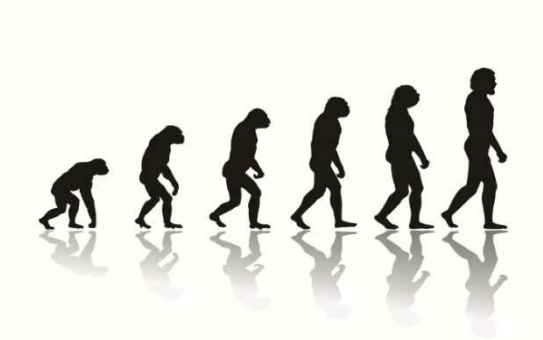

## Your Health

# Evolution and Natural Selection©

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**Words are explained alongside the text**

**Stressed syllables are underlined and in bold***

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Evolution. You've probably **heard of** it during debates on the origins of life. In the past, there was often a large **divide** between those who believed God created the human form and those who believed that humans evolved over millions of years. **Nowadays**, evolution has been proven through a number of studies **spanning from** the universal genetic code, fossil records, common **traits** in embryos, **to** bacterial resistance to antibiotics.

To begin with, let's define what evolution is. The dictionary definition of evolution is 'the process by which different kinds of living organisms are thought to have developed and diversified from earlier forms during the history of the earth.' What this essentially means is: evolution is the course taken in life by a living organism to **gradually** develop into different **species** **matching** their surrounding environments. A fundamental part of evolution is a process called natural selection, which will be discussed later.

The basic process of evolution essentially consists of 3 parts:

Part 1: The DNA of an organism can occasionally change, or mutate. This could be as a result of the environment or perhaps the organism is simply born with it. This mutation changes the DNA of the organism in such a way that it can be **passed on** through its **offspring**. **Eventually** this DNA mutation will have an effect on future generations either immediately or several generations later.

Part 2: Now that a 'mutant' organism has been born, this DNA mutation will either be **beneficial**, **harmful** or neutral. If the change is harmful, then the offspring will more than **likely** die before being able to reproduce, so the mutation **dies out** and goes nowhere. If the mutation is beneficial, then it is likely that

**to hear of sth.** (exp.) to hear people talking about sth.

**divide** (n.) gap

**nowadays** (adv.) today, at the present time

**to span from…to…** (vb.) to include

**trait** (n.) characteristic

**gradually** (adv.) progressively

**species** (n.) a class of plants or animals which have the same main characteristics and are able to breed with each other

**to match** (vb.) to adapt to, to fit into

**to pass on** (phrasal vb.) to transmit

**offspring** (n.) children, young

**eventually** (adv.) finally, in the end

**beneficial** (adj.) doing good

**harmful** (adj.) causing harm, dangerous

**likely** (adv.) probably

**to die out** (phrasal vb.) to disappear over generations

the offspring will do better than the other offspring who don't have the mutation and so will reproduce more. Through reproduction, the beneficial mutation **spreads**. The process of bad mutations dying out and spreading of good mutations is called natural selection. A neutral mutation will either remain throughout generations or also die out.

Part 3: As mutations **occur** and spread over long periods of time, they eventually cause new species to form. Over the course of many millions of years, the processes of mutation and natural selection have created every species of life that we see in the world today, from the simplest bacteria to humans and everything in between.

As we mentioned earlier, there was a big debate on **whether** evolution was a real phenomenon **or not**, especially within the religious community. Nowadays, there are many other interpretations of the origins of life. Scientists believe that billions of years ago, according to the theory of evolution, chemicals **randomly** organized themselves into a self-replicating molecule. This **spark of life** was the **seed** of every living thing we see today (**as well as** those we **no longer see**, like dinosaurs). That simplest life form, through the process of mutation and natural selection, has been **shaped** into every living species on the planet. **Having said that**, the conditions that were required for the big bang were in itself a miracle – potentially suggesting that there could have been a higher power!

This week's advice: The theory of evolution has enough evidence to be proven, this does not, however, disprove the existence of God or a higher being. In fact, as scientists continue to discover the miracles of science, many scientists actually start to believe in the existence of a higher power.

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**to spread** (irreg. vb. spread, spread) to reach or affect a wider area or more people

**to occur** (vb.) to happen

**whether…or…not** (exp.) if…or not

**randomly** (adv.) in a disorganized way, not in any particular pattern

**spark of life**(exp.) small but very active piece of life

**seed** (n.) small hard part of a plant from which a new plant grows

**as well as** (exp.) in addition to

**no longer see** (exp.) do not see any more

**to shape** (vb.) to form

**having said that** (exp.) however, despite that

**Stress in 3 syllable words usually falls on the 1st or 2nd syllable. It is rarer for the main stress to be on the 3rd syllable:**

**Words with their stress on the 1st syllable:**
origins, embryos, diction(a)ry, earlier, history, scientists, theory, chemicals, evidence

**Words with their stress on the 2nd syllable:**
genetic, develop, surrounding, selection, mutation, religious, conditions, existence

**Word with its stress on the 3rd syllable:** reproduce