

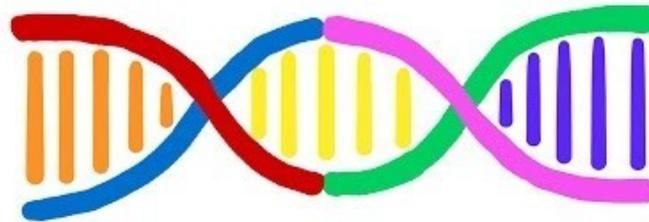
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Media Release – Epigenetics - The Science Behind Your Gene & Lifestyle Interactions

From: NZ Register of Exercise Professionals



## WHAT IS EPIGENETICS?



### Epigenetics - The Science Behind Your Gene & Lifestyle Interactions

An understanding that both our genes and our lifestyle impact on our health is not a new concept but it is one that is gaining popularity as more people seek to live a better and longer life, and seek to make positive improvements to their health.

The science behind gene and lifestyle interaction is called Epigenetics, and whether or not you've heard the term, you are experiencing the effects both negative and positive, on a daily basis.

Epigenetics is 'the study of changes in organisms caused by modification of gene expression rather than alteration of the genetic code itself'. Simply put this means that instead of genetic inheritance leading to a guaranteed health outcome (such as a family history of heart disease or diabetes), what we do throughout our lives has the power to turn on, or off, these genes.

There are different ways this plays out in life;

- Hair colour, skin tone are all expressions of genes.
- Why some people in a family get an 'inherited' disease and others don't.
- How our lifestyle affects our health, both positively and negatively, including sleep, nutrition, activity levels, stress and environment.
- How we age

Epigenetics in a health and exercise framework is about not accepting what is a possibility through genetics, and instead focusing on ways to improve outcomes through lifestyle interventions. While genes cannot be altered, encouraging people to live a healthy lifestyle in order to encourage, or limit how much these genes impact on your health, is the basis of many modern exercise professionals.

Ageing is a great example of the concept of epigenetics in action. The longer we live, the older we get, and along with increasing years, come a range of health issues. Age related illnesses and disease come from a combination range of modifiable and non-modifiable risk factors. Lifestyle factors, such as an unhealthy diet, and inactivity will accelerate the aging process, and will predispose individuals to an increased range of illnesses and conditions. Those who live a more well balanced and active life are less likely to experience these diseases, or will experience them later in life, or at a lower level. While ageing is inevitable, the way we age can be modified, regardless of our genetic makeup.

The way people eat, their energy levels, and their style of exercising is able to influence health, and this is seen as a result of using the concepts of epigenetics. Planning your lifestyle choices reflect more than just what is the obvious option, and instead digging deeper.

If you are interested in finding out more about making the most of your investment into your health, be it through the science of epigenetics or not, your first stop should always be to a registered exercise professional to get the right information to make an informed choice.

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### Contact details for further information about the exercise industry:

**NZ Register of Exercise Professionals**, Registrar Stephen Gacsal

Email: [stephen@reps.org.nz](mailto:stephen@reps.org.nz) telephone: 0800 55 44 99 website: [www.reps.org.nz](http://www.reps.org.nz)

**NZ Register of Exercise Professionals (REPs)** - Independent not for profit quality mark of exercise professionals and facilities. Using REPs Registered Exercise Professionals is the “warrant of fitness check” that exercise professionals and facilities meet New Zealand and internationally benchmarked standards to deliver safe exercise advice and instruction. REPs is affiliated globally to other national exercise professional registers representing over 210,000 exercise professionals through the International Confederation of Registers for Exercise Professionals (ICREPs) - [www.icreps.org](http://www.icreps.org)

**Exercise Association of New Zealand**, Chief Executive Richard Beddie

Email: [richard@exercisenz.org.nz](mailto:richard@exercisenz.org.nz), telephone: 0800 66 88 11 website: <http://www.exercisenz.org.nz>

**Exercise Association of New Zealand** - Not for profit exercise industry representative organisation. Its *mission is to proactively support a sustainable exercise and fitness industry in New Zealand by growing participation in structured exercise through advocacy, information and industry standards.*

