

Meet Nadina, she's a chemical design engineer



- In school Nadina studied Maths and Chemistry for A-level.
- After school she did an apprenticeship in an engineering firm and then received a bursary to study in chemical engineering in University.
- She wanted to get a job in the sport industry because she wanted to do something related to people's health
- She designs products and accessories to help people with sport injuries.



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What skills help me as an engineer?

“My job requires a lot of hands-on, practical experience. I also need an understanding of innovation principles and processes as well as how design can help attract people to a product as well as how the design help’s people get benefit from a product.”

“As a chemical design engineer I work with raw materials to create everyday, useful products to help people with sporting injuries. For a job like mine you would need to be interested in chemistry. There are also plenty of routes into engineering – such as apprenticeships and vocational schemes – that focus more on your experience of practical problem-solving rather than a more academic route.”

Chemical Design Engineer

- Main aspects of Nadina's job:
 - Identify a common problem to create a 'life hack' e.g. how to minimise the impact of a sport injury with quick treatment using specialist products.
 - Generate potential solutions by testing chemicals, materials and using principles of ergonomic design.
 - Compare and evaluate solutions by rigorous lab testing to find the best fit solution for a particular injury.
 - Consider risks to society with thorough testing and the environment by identifying environmentally friendly resources.

Chemical Engineering

- You are a group of chemical engineers who work for a sports company. As part of your role, you design products that minimise sports injury. Your latest task is to design two instant sports injury packs:
 - One pack needs to provide immediate relief for a sports injury that has just occurred. It needs to sooth pain and reduce swelling.
 - One pack needs to provide relief for an old sports injury. It should be able to sooth a dull ache.