



# The Advancement of Ventilators

- The topic we have decided on is the advancement of ventilators. Ventilators had been around since the 19th century but weren't widely used until the mid-20th century. Since then, there has been many technological advancements in the medical field that have revolutionized ventilators like going from negative pressure to positive pressure and the many methods that were developed over time.
- Throughout the last century, the image of ventilators has changed drastically. One of the first instances of a ventilator wasn't the most human friendly, it was built to be durable and to outlast the people that were using them to help treat and assist patients with acute respiratory failure. In current times, ventilators have evolved massively, we have 4th gen ICU ventilators which are by far the most complex, versatile, and advanced ventilators ever produced. Thousands of these machines are used daily to help people acquire the respiratory assistance needed, whether it's to help patients with diseases, or viruses like Covid-19 who have difficulty breathing or, to support breathing during general anesthesia for surgeries.
- The reasoning behind our topic is that we wanted to focus our attention to investigate the different health impacts on a person a ventilator has as the technology and methodologies have changed over time. We also wanted to explore the overall benefits, drawbacks, opportunities, and risks that have been taken to get where we are today.
- The group leader is Brendan Croft who will be managing the group to make sure that everything is done on time. The research will be led by Prawda Dewage. The development of the website will be led by Bradley Chung. All group members will contribute to help support the roles of others. Members will have an UpToDate and synced repository. Members are also expected to show leadership throughout each of their assigned phases of the project.

Repository - <https://canvas.aut.ac.nz/groups/14191/files>