



PEDAL Newsletter

Promoting electrically-
assisted cycling in
people with Type 2
Diabetes.

January, 2018

WHY WAS PEDAL CONDUCTED?

- Physical activity, such as cycling, can help people to manage Type 2 Diabetes
- However, we know there are lots of factors that stop people from cycling. Some examples include lack of time, the amount of effort required and the hilly terrain
- Electrically assisted bikes (e-bikes) have become popular over the past few years as a way of overcoming some of the barriers people experience
- However, before PEDAL little was known about how people with diabetes would respond to e-bikes



QUESTIONS WE WANTED TO ANSWER

1. IF PEOPLE ARE GIVEN AN E-BIKE WILL THEY RIDE IT?
2. WILL RIDING AN E-BIKE PROVIDE ENOUGH EXERCISE TO IMPROVE HEALTH?
3. WHAT DO PEOPLE THINK ABOUT RIDING AN E-BIKE?

PEDAL AT A GLANCE

WHO?

- 18 people (11 men and 7 women) with Type 2 Diabetes

WHAT?

- Bike training was provided by Life Cycle UK
- People were given an e-bike to ride for up to 20-weeks

MEASURES

- Distance travelled was recorded
- Heart rate during riding
- Amount of power that the legs could put out before and after using the e-bike for 20-weeks
- Interviews to find out peoples' experience of using the e-bikes and if views regarding e-biking had changed

WHAT WAS FOUND?

On average,
people cycled
495km on the e-
bike

14 people bought
an e-bike after
the 20-weeks



WHAT DID PEOPLE THINK OF E-BIKING?

- E-biking was believed to be less effort than regular cycling, so people were more likely to go e-biking even in hilly areas
- In general, the e-bikes were comfortable
- Some people felt unsafe riding the e-bike to start with because of other road users and the road surface
- However, people reported feeling more confident after using the e-bikes and they enjoyed the rides
- Riding an e-bike enabled people to go on rides with their friends and family

HEART RATE



When riding the e-bike on average heart rate was 125 beats per minute compared to 108 when walking.

This suggests that e-bikes have the potential to increase heart and lung health.

LEG POWER



On average people could put out 10% more power in their legs after using the e-bikes for 20wks.

This suggests that e-biking can increase fitness levels

THIS RESEARCH SUGGESTS THAT E-BIKES CAN OVERCOME SOME OF THE BARRIERS TO REGULAR CYCLING AND HAVE A POSITIVE IMPACT ON HEALTH

WHAT NEXT?

In 2018 the University of Bristol, in collaboration with Life Cycle UK, we will be running a similar project for people with type 2 diabetes. As part of this project we will be collecting a range of measures before, during and after using an e-bike for three months to determine if riding an e-bike has a positive impact on health. We are looking for people to take part in this study so if you are interested please get in touch with Life Cycle UK or Jessica Bourne at the University of Bristol (Jessica.bourne@bristol.ac.uk) for more information.