

Parkinson's Specific Exercise Programme

Introduction

The project is to run a weekly Parkinson's specific exercise class called 'Active with Parkinson's' in the Great Dunmow area led by a trained and very experienced level 4 neurological coach Paul Goddard. The programme is based on the results of extensive research into the benefits of intense exercise in the treatment of Parkinson's based on an Australian programme called PD Warrior. No such exercise regime currently exists in the local area.

These exercises have been developed to improve mobility, posture, balance and flexibility normally affected in Parkinson's patients. These exercises comprise the movements which target different aspects of Parkinson's. People with Parkinson's develop stiffness and loss of rotation through the trunk which can affect walking, posture and balance. For example the exercise called '007' is designed to develop fluidity in an individual's trunk rotation. The patient holds a weight (1Kg) in both arms out-stretched in front of him. He then turns as quickly as possible from this position to the side (90° change) and halts all movement. He repeats the movement in all the five directions available to him.

The Active with Parkinson's exercise programme consists of a circuit of 10 stations situated around the exercise room. Each station is dedicated to one unique exercise and the participants move between them during the hourly session. The exercise is intense: each participant is expected to expend 80% of their available energy to each task. A concentration on bi-lateral movement, exciting rhythmical music and vigorous effort impart the class with a feeling of wellbeing. The cool down period is a Tai Chi for Wellbeing set of exercises.

Need for Specific Exercise

Parkinson's patients suffer a range of disabilities caused by the lack of dopamine and damage to the receptor cells in the central nervous system. These range from stiffness of movement, tremor of the limbs, balance and co-ordination difficulties to mental problems of apathy, depression, anxiety, and introversion. The physical and mental problems can combine to make it difficult for the patient to participate in normal daily activities such as dressing, shopping, etc. The mental effects can combine to make it difficult for the patient to interact in normal social situations, becoming isolated and withdrawn. By joining a group of other people with Parkinson's who are actively combating the effects of the condition the participants will feel increased self-confidence and less isolated. Combating these problems successfully will reduce the load on the NHS and social services. All of the above effects are tackled by the Active with Parkinson's exercise programme.

Effects of the Specific Parkinson's Exercises

The coach said "I have observed noticeable improvements in the Parkinson's symptoms in participants in their balance, posture and coordination. It has been particularly clear that the effect of the exercise has increased their self-confidence and mood generally."

By joining this exercise group, participants' symptoms of stiffness, balance and coordination difficulties are improving and participants are motivated to increase their exercise. The effects are

long lasting. The National Parkinson Foundation (NPF) in the USA has issued the following statement on 'The Neuroprotective Benefits of Exercise'

'For people with Parkinson's exercise is not only healthy, but a vital component to maintaining balance, mobility and daily living activities. Every NPF Centre of Excellence agrees that they believe exercise is important to good outcomes in Parkinson's, and the (results) data supports that. Exercising is associated with a better sense of well-being, even across stages and severity of the disease. There is a growing consensus amongst researchers about the short- and long-term benefits of exercise for people with Parkinson's.'

Specific Parkinson's Exercise can benefit in three ways:-

1. Symptom management. Research has shown that exercise can improve gait, balance, tremor, flexibility, grip strength and motor coordination.
2. There is a strong consensus among physicians and physical therapists that improved mobility decreases the risk of falls and some other complications of Parkinson's. They agree that practicing movement physical therapy, occupational therapy, and participating in an exercise program significantly improves mobility. Studies in animals suggest that Parkinson's disease is also improved by exercise. One Parkinson's Outcomes Project study has proven that people with Parkinson's who vigorously exercise for 2.5 hours per week show a slow down in the decline in the quality of life, and the sooner they begin vigorous workouts after diagnosis, the better.
3. Making a positive impact on people's lives – improved aquatic environments, reduced isolation, increased community safety, improved health or social skills, access to role models, improved literacy or numeracy, gain employment.

Conclusion

There is a significant positive impact on all the participants of the Active with Parkinson's programme in their mobility and quality of life. The perceived benefits as seen by the participants at the end of the first 12 week programme are attached.

There is much research showing the benefits of exercise on people with Parkinson's. The following research paper outlines clearly the benefits of exercise in improved health outcomes and quality of life, which helps to maintain independence and enable social participation:

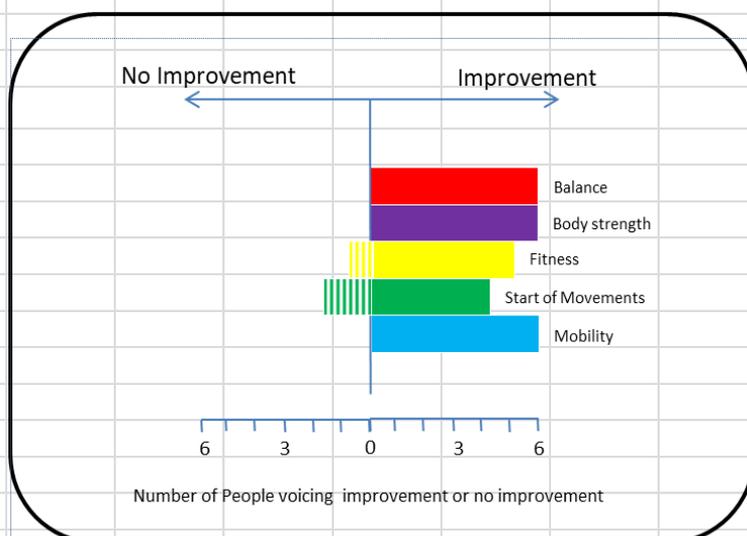
References and Attachments

FRAZZITTA G, BALBI P, MAESTRI R, ET AL (2013). The beneficial role of intensive exercise on Parkinson disease progression. *Am J Phys Med Rehabil*; 92 (5): 1 - 10

Attachment – Evaluation of the first Active with Parkinson's Circuit Class by the members of the class.

Improvements felt as a result of taking part in 12 weeks of Parkinsons Specific Exercise Class

Physical Improvements reported



Comments on Physical Improvements

- ① Fantastic trainer in Paul – huge thanks
- ② Brilliant class – well designed circuit.
- ③ Marching is really helpful, it has helped overcome my problem of freezing.
- ④ Very good, has really helped me. My coordination has improved, especially with the marching.
- ⑤ Already doing exercise 3-4 times a week, but this class has still made improvement.
- ⑥ Sometimes feel it hard to get going if feeling tired. Mornings are better for me.

Comments on Confidence Improvements

- ① I can run and box now.
- ② Used to be shy, now feel more at ease meeting people.
- ③ The Tai Chi session at the end helped me to relax.
- ④ You see other people in the same state as yourself and they motivate you

Comments on Symptoms Improvements

- ① Better balance - less medication.
- ② Yes, my family and friends have noticed. My whole attitude is better, I am happier and join in more
- ③ I was already fairly active.
- ④ Improvement in confidence.

Key Class Features that make it successful

- ① Paul Goddard – trainer
- ② The instructor together with other participants.
- ③ Paul is the catalyst, he gave me the confidence to do things.
- ④ Meeting others and getting encouragement. Now I can encourage others.
- ⑤ Exercise itself.
- ⑥ Giving myself the confidence that I can do things for myself, even though I felt I couldn't.
- ⑦ Lovely group. Go every week, can talk to each other, they understand what you're going through.
- ⑧ Good to have a laugh & a joke. Can let off steam & no-one would criticise