Sarah Kelly, Senior Physiotherapist in Cystic Fibrosis, St. Vincent’s University Hospital, presented a workshop on The Benefits of Adherence and Exercise at CFI national conference 2013 in Kilashee House Hotel. Sarah explained the national guidelines of exercise for the general population and the importance and added value of exercise for PWCF.

The National Guidelines on Physical Activity for Ireland supports the promotion of physical activity in Ireland. These guidelines aim to:
- emphasise the importance of physical activity to the health of all Irish people;
- outline the recommendations for physical activity for people of all ages and abilities.

What is Physical Activity?
Physical activity is defined as any bodily movement produced by skeletal muscles that require energy expenditure (WHO).

Any force exerted by skeletal muscles that results in energy expenditure above resting level (Physical Activity Guideline Advisory Committee, 2008).

Who Should Exercise? EVERYBODY
The National Guidelines on Physical Activity for Ireland can be read/downloaded at www.getirelandactive.ie The general population is divided into 2 groups when recommending the amount of exercise we should do weekly. All children and young people (aged 2-18), moderate to vigorous exercise for at least 60 minutes/day. All adults (aged 18-64 & 65+), moderate activity for at least 30 minutes, 5 days/week.

Parental Involvement plays an important role in influencing a young child’s activity patterns. Exercise should be for all the family, not just the member with CF. As parents we need to be the role models establishing lifestyle is essential to facilitate adherence to exercise throughout childhood, adolescence and adulthood.

What Kind of Exercise?
Aerobic Activity – “endurance activity” usually a repetitive, rhythmic activity e.g. walking, running, swimming, cycling, scooting, skipping.

Resistance training – specific muscle strengthening activities. Weight bearing exercise - maximise bone density - decrease absorption of calcium/vitamin D in CF population.

Postural awareness – thoracic kyphosis prevalent in CF population.
Pelvic floor strengthening - very important for maintaining strong cough, good posture and preventing leak!

What about the Cystic Fibrosis population.
Both children and adults with CF have been shown to have the ability to increase exercise capacity with exercise training, regardless of disease severity (Rand & Prasad, 2012). Association between aerobic capacity and survival in CF was first reported in 1992 (Nixon et al, 1992). Regular exercise has the potential both in the short and long term to slow the annual rate of decline in lung function (Wells et al, 2011, Hebertreit et al, 2010).

Physiotherapy Recommendations for CF – Airway clearance techniques at least 1-2 x daily, in conjunction with medications (inhalers, nebulised meds, sinus rinses/sprays). Timing of physiotherapy/meds requires consideration.

Daily physical activity/exercise, including aerobic activity and strength training.

Effects of Exercise in CF population
Early research showed a positive effect on ventilation and mucus clearance. In the 80’s exercise was deemed “safe” for CF patients. In 2013 exercise is “medicine”, and should be prescribed as part of all individualised physiotherapy regimes.

Moderate activity
Heart is beating faster than normal, breathing is harder than normal but still able to talk but not sing, warm or sweating slightly. Moderate aerobic activity – brisk walking (15-20min mile), digging in the garden, water aerobics, cycling (slower than 10miles per hour), tennis (doubles), ballroom dancing.

Vigorous activity
Heart is beating much faster than normal and breathing is much harder than normal.

Type of Aerobic Activity (vigorous intensity) – Active games involving running and chasing, such as tag, bicycle riding, skipping, martial arts, football, hurling, basketball, swimming.


Bone Strengthening – hopscotch, skipping, running, gymnastics, volleyball

Tip - To work out your maximum heart rate during physical exercise minus your age from 220.

How Physical activity benefits health

Although many people think of health in terms of illness, health is a positive concept that covers your physical, mental and social well-being (Dept of Health and Children, 2000). Physical activity benefits every aspect of your health