

# Parkinson's news

D E C E M B E R • 2 0 0 6



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“ The Society has set up a Patient Welfare Fund to provide financial assistance to needy patients. You can get an application form from your doctor. For enquires, please write to Chairperson, Patient Welfare und Subcommittee, Parkinson's Disease Society, C/O NNI Administration level 2, National Neuroscience Institute, 11 Jalan Tan Tock Seng, Singapore 308433. ”

## Parkinson's Disease Society (Singapore) 10<sup>th</sup> Anniversary Celebration cum Fundraising Walkathon

*Parkinson's Disease Society (Singapore) celebrated its 10<sup>th</sup> anniversary this year with a fundraising walkathon cum outdoor celebration at Bishan Park I on 2<sup>nd</sup> September 2006.*

This is the first time the Society is organizing a fundraising walkathon in 10 years, and a celebration event of a mammoth scale. It was an overwhelming success, given the limited resources we had. Over 500 participants gathered at Bishan Park I on that day to show their support for the Society. Participants arrived as early as 7:30 am, thanks to the free shuttle service provided by Westpoint Transit Pte Ltd. By 8:15 am, there was already a huge crowd gathered at the open field of Bishan Park I, with pre-event entertainment performed by Balqio, a local band.

Our Society was honoured to have the Health Minister, Mr Khaw Boon Wan, to grace the occasion. Dr Adrian Tan, President of Parkinson's Disease Society (Singapore) gave the opening address before inviting the Minister on stage for the anniversary cake cutting ceremony. Everyone sang the 'Happy Birthday Song' in harmony to the beautiful

tune played by Balqio and a group of young talented violinists. After the cake cutting ceremony, the Health Minister joined the participants in a 10-minute stretching exercise routine, led by physiotherapists from Tan Tock Seng Hospital. The walkathon was officially flag-off by the Health Minister at 8:50 am. Friendly marshals from Greendale Secondary School guided the participants along the way. There were three different walkathon routes (2km, 1km, and 0.5km) with the same starting and ending points so that participants, regardless of their physical abilities, were able to complete the walkathon at their own pace. With support from families, friends, and volunteers, even those with walking aids and on wheelchairs were able to participate and to complete the walkathon. Everyone had a good time, including the Minister. The Society was also blessed with excellent weather throughout the day. Participants each received a bottle of mineral water and a



souvenir kit at the Finish Point. They were also treated with ice-cold Milo and a sumptuous brunch.

Running in parallel with the walkathon was a mini carnival with activities catered for both the young and the old. There was a Children's Corner manned by staff and volunteers of National Neuroscience Institute. Free balloons, stickers and kites were given away to children participants. We saw long queues at the Henna Drawing Station, even towards the end of the carnival. The Health Corner was also kept busy throughout the event. Participants had free health screening and advice from nurse clinicians, dieticians and therapists from National Neuroscience Institute, Tan Tock Seng Hospital, and Singapore General Hospital. There was also an exhibition on Parkinson's disease to



promote public awareness about the illness.

One of the highlights of the celebration was the celebration concert performed by members and friends of the Society. The concert started on a high note with a violin concerto performed by a group of young talented violinists. They played to the tunes of classical and evergreens, including the opening score of the popular Korean movie 'Da Chang Jin'. There were also dance performances by the young and energetic Nanyang Polytechnic dancers, the ever cheerful National Neuroscience Institute Line Dancers, and the serene and poised Tai Chi Fan Dancers from Yio Chu Kang Community Centre. Besides dances, there were also an educational skit performed by the Secondary

One students of Greendale Secondary School, Chinese Pipa performance, and a magic show. Our member Mr Joseph Chung also won the hearts of the audience with his song. The concert ended with a medley of songs performed by Balqio.

Overall, the walkathon cum celebration event was an overwhelming success! It was a healthy, fun and educational event for all. All these would not have been possible if without the support from our generous sponsors (GlaxoSmithKline, Novartis, Boehringer Ingelheim, Medtronic, Khoo Foundation, Westpoint Transit Pte Ltd, Nestle Singapore Pte Ltd, Pine Garden Pte Ltd, Tong Heng Pastries), supporting organizations (National Neuroscience Institute, School of Health



Sciences at Nanyang Polytechnic, Greendale Secondary School, Interact Club at Yishun Junior College, St John Ambulance Brigade Zone 7), and friends and volunteers of Parkinson's Disease Society (Singapore). We were also grateful to our members, their families and members of the public who have donated generously to the Society. Through all your efforts, we are pleased to announce that the Parkinson's Disease Society (Singapore) had collected \$62,000. The funds raised will be used to fund the numerous programmes of the Society, in particular to raise the public awareness of Parkinson's disease, and to empower patients and caregivers who live with this illness.

**By: Dr Au Wing Lok**

## Staying Active with Parkinson's Disease

***Parkinson's Disease (PD) is a slow progressive disease. It is therefore essential to maintain one's mobility status at its optimum.***

A person with PD experiences certain motor impairments such as slowness in carrying out movement, difficulty carrying out simultaneous movements, walking abnormalities and a decrease in co-ordination in reach-to-grasp tests.

One of the main reasons for these motor impairments is postural instability. This in turn is caused by rigidity and a slower reaction time that universally affects a person with PD. As a result, the person is at a higher risk of falls. An example of a posture adopted by many PD patients is a forward flexed posture.

Staying active by performing regular stretches for main muscle groups such as those in the trunk, thighs and calves would slow down the onset of these symptoms.

Freezing is another common complaint of

people with PD. It is the sudden inability to continue with a movement halfway through it. Physiotherapy techniques such as those listed below will aid the PD person with overcoming it.

Some physiotherapy strategies can also be applied to help with improving quality of movement. The first would be: 'task and context related practice' where a person practices an everyday task in its setting repeatedly until they can do it independently. They also learn to make anticipatory movements that improve reaction times within these settings.

The second strategy would be the use of 'visual cueing'. This would include lines marked out on floors to aid with walking or different coloured tiles on steps to make them more prominent.

The third strategy involves the use of 'auditory (sound) cues' such as clapping or counting of steps to help in smoother walking patterns and prevent freezing.

The final strategy, 'attentional strategy' involves a lot of mental practice and a higher level of understanding of the movement

pattern. Movements can also be made simpler by breaking it down into steps. With this understanding, mental practice and rehearsals of the movement are carried out by the PD patients before actually carrying it out.

Now with all the strategies in place and when you are confident of your movement, regular aerobic exercise should become part of your daily routine. Some benefits of regular exercise include:

- Improved posture
- Improved control over gross motor movements, such as walking
- Increased cardiovascular fitness
- Improved joint mobility and muscle strength
- Improved coordination and balance
- Reduced stress levels
- Greater confidence in performing daily activities

However, please consult your doctor before starting on your regular exercise regime. Walking is an excellent form of exercise to begin with. Start by first stretching your leg muscles. This prevents cramps during your exercise. Choose flat and obstacle free

## Doc, You have Done Your Best!

This is a brain disorder we have got  
And we can do our best to improve our lot  
Never forget to smile and exercise a lot

Every patient knows what has been through  
Now we have doctors helping us too  
Giving us confidence to control it too

Knowledge of Parkinsons does help us a lot  
Indeed we know what we have got  
Now we can deal with it as best we can  
Gaining the upper hand whenever we can.

Many Thanks doctor  
You have done your best  
GOD will do the rest!

**Robert Chia**

# What is Parkinson's Disease?

## Understanding the Diagnosis

The brain is the control centre of the body. It controls how we think and how we move. It is made up of cells called neurones. These neurones "talk" to each other by using chemicals called neurotransmitters. Everyday in our body, cells die and new ones grow in their place. However, in the brain, when neurones die, they do not get replaced. In Parkinson's disease, the neurones in a particular part of the brain, called the substantia nigra, die. This results in a decrease in the production of the chemical messenger, dopamine. The substantia nigra forms part of a brain micro-circuit called basal ganglia. The lack of dopamine means the basal ganglia is unable to co-ordinate movement effectively with other parts of the brain.

We do not know why we lose neurones in Parkinson's disease. Much interest has been focused on the genetics of Parkinson's disease. However, this is only one part of the puzzle. We believe Parkinson's disease occurs as a result of the interaction of age-related changes, genetics and environmental factors.

The cardinal features of Parkinson's disease include tremor, rigidity, bradykinesia and postural instability. However, conditions other than Parkinson's disease can give rise to a similar picture. Common examples include strokes and the use of certain drugs. Your doctor will try and differentiate Parkinson's disease from these conditions based on physical examinations and the history of your symptoms. Brain scans may be helpful in certain situations. However, they are not always necessary. Sometimes, diagnosis can be difficult, but with time, it usually becomes clearer.

## Phases of Parkinson's Disease

Parkinson's disease is a chronic progressive neurological condition, and it affects different people in different ways. Broadly speaking, the time course of Parkinson's disease can be divided into 4 phases. The diagnostic phase is about establishing an understanding of the disease and working out a treatment plan that effectively controls any symptoms. The maintenance phase is a honeymoon period when treatment works well. Ongoing adjustments may be necessary. However, on the whole, patients should be able to carry out any activities as normal.

Unfortunately, as time goes by, problems arise. These include unpredictable responses to drugs (motor fluctuations), abnormal involuntary movements (dyskinesias), depression, confusion, reduced mobility and falls. During this complex phase, the drug regime gets more complicated and frequent changes are usually needed. Neurosurgery may be considered at this stage. However, patients often find they need more help and adaptations to maintain daily activities. Towards the end-stages of the disease, we enter the palliative phase. Patients can become very dependent and immobile. There is often difficulty in communication and swallowing. The usual medications for Parkinson's disease are often no longer effective, and sometimes, they may have to be withdrawn due to adverse side-effects.

## Motor and Non-Motor Symptoms and Complications

Traditionally, Parkinson's disease is viewed as a motor disorder. However, non-motor problems are being increasingly recognised. More research is being done on the assessment and treatment of these non-motor symptoms.

### Motor Symptoms and Complications

- Tremor
- Communication e.g. speech, lack of facial expression, writing
- Impaired activities e.g. walking, turning in bed
- Motor dyskinesias
- Motor fluctuations
- Falls and Fractures

### Non-Motor Symptoms and Complications

- Mental Health e.g. depression, dementia, psychosis
- Sensory disturbances e.g. loss of sense of smell, pain
- Autonomic disturbances e.g. bowel and bladder dysfunction, poor swallow, postural hypotension
- Sleep disorders e.g. inverted sleep-wake cycle, excessive sleepiness, restless legs, vivid dreams

Given the many symptoms seen in Parkinson's disease, and the multiple needs of patients and carers, a multi-disciplinary approach is essential to ensure a holistic approach in management.

**By: Dr Bettina Wan**  
**Changi General Hospital Geriatrics**

terrain and count each step for a smoother and more rhythmic style. To begin with, aim for at least 3 to 4 times a week of exercise with each session lasting for about 15 minutes. Progress it by either increasing the intensity or duration of the exercise.

An important thing to note before exercising is the 'On' and 'Off' periods if you are taking anti-PD medication. Exercise during the 'On' phase. This is usually about 30 to 45 minutes after taking medications. And refrain from exercising during the 'Off' period as you may find it harder to perform the movements.

During exercise, always stop and rest if you feel tired or pain at any point. Another important rule is to start slowly and not to overdo it.

To sum up;

1. Stretch regularly to minimise the onset of rigidity
2. Exercise regularly to stay active
3. Note your 'On' and 'Off' periods if you are on PD medications
4. Speak to your Physiotherapist or Doctor if in doubt and for a more individualised exercise programme

**By: Sharika Udipi**  
**Phyiotherapist**  
**Changi General Hospital**

# Announcements for 2007

## 1. Membership Renewal

It is time once again to renew memberships for the year 2007. Membership fees are \$30 / year for members less than 60 years of age and full time students, and \$15 / year for members 60 years and above. To avoid the administrative inconvenience every year, members are encouraged to sign up for Life Membership to enjoy the benefits of membership for life! The cost is \$200 (one-time) for members less than 60 years of age or \$150 (one-time) for members 60 years and above. Please check the website or contact the secretariat for more information.

## 2. Highlights for 2007

**14 April '07, Sat** : World PD Day Tour

**5 May '07, Sat** : Public Forum at National University Hospital cum Annual General Meeting

**20-22 Oct '07** : 6<sup>th</sup> International Symposium of the Asian and Pacific Parkinsons Association held at Suntec International Convention & Exhibition Centre. Members of the Society will benefit from reduced registration fees to attend the meeting which is specially for patients, caregivers, nurses and allied health professionals.

## 3. Support Group Meetings

### Meetings at National Neuroscience Institute @ Tan Tock Seng Hospital

**Venue** : Neuroscience Clinic NNI Level 1

**Time** : 9.30 AM to 11.00 AM

**Registration fees** : Free for members of Parkinson's Disease Society  
\$2.00/- per person for non-members

Please register by phone with Rina Ho at 6357 7060.

Dates	Topics	Speakers
3 Feb 07 Saturday	Neurosurgery for Parkinson's disease (Deep brain stimulation surgery) & Education for patients going for DBS surgery in English	Dr John Thomas, Senior Consultant, NNI – SGH campus Lau Puay Ngoh, PD Nurse Clinician, NNI
3 March 07 Saturday	Neurosurgery for Parkinson's disease (Deep brain stimulation surgery) & Education for patients going for DBS surgery in Mandarin	Neurosurgeon, Lau Puay Ngoh PD Nurse Clinician NNI

### Meetings at National Neuroscience Institute @ Singapore General Hospital

**Venue** : Education Resource Centre (Rehabilitation Centre, Blk 1 Level 1)

**Time** : 11:00 AM to 1:00 PM

All talks in English (with Mandarin translation)

For more information, call Nurse Tan Siok Bee @81253543 or 98024721

Dates	Topics	Speakers
8 Jan	Group Discussion	Participants
5 Feb	Periodic Leg Movement	Dr Pavanni Ratnagopal SGH Head, NNI & Snr Consultant Neurologist
5 Mar	"Creating memories together" [to bring along 1-2 pictures of self with family/friends]	Ms Tan Kog Kng Snr Care Coordinator (Social Work)
2 Apr	What is Parkinson's Disease and Treatment Options	Dr Tan Eng King Snr Consultant Neurologist
7 May	Overview of Neurosurgical Procedures for Parkinson's Disease	Mr John Thomas Snr Consultant Neurosurgeon

# Sleep Problems in Parkinson's Disease

*Sleep problems are important to recognize in Parkinson's Disease (PD) because they are common, often overlooked and inadequately managed.*

Sleep disruption in PD is often multifactorial. Sleep disturbance may be part of the neurodegenerative process disrupting neural pathways important in the regulation of sleep, including dopaminergic, serotonergic, cholinergic and noradrenergic systems. In addition psychological factors, physical discomfort, excessive involuntary movements, medication effects and underlying sleep disorders which have been associated with PD can contribute to the reduced amount and quality of sleep that is seen in this population. Various abnormalities in sleep patterns of PD patients have been described, including sleep fragmentation, increased arousals, decreased sleep efficiency and abnormal muscle tone during REM sleep.

Depression and anxiety in PD patients can cause insomnia, which typically presents with difficulty falling or staying asleep, and early morning awakenings. Nocturia, rigidity causing difficulty turning over in bed, painful leg cramps, nocturnal tremor, dystonic spasms and dyskinesias also affect sleep. Medication can be sedating or stimulating. Dopaminergic agents at lower doses may cause sleepiness, while higher doses induce wakefulness.

PD has been associated with several sleep disorders, including REM behaviour disorder, Restless Legs Syndrome with Periodic Limb Movements of Sleep, nightmares and obstructive sleep apnoea. Patients suspected of having sleep disordered breathing or parasomnias may need a sleep study for further evaluation.

Sleep evaluation should be a routine part of assessment of PD patients. Accurate diagnosis and effective management of sleep disorders can greatly improve the quality of life of these patients.

**PS:** If you have sleep problems and would like to participate in a sleep study at no cost, please call: 63266202 (SGH SLEEP DISORDERS UNIT)

**By: Dr Lim Li Ling**

We **Thank** Boehringer Ingelheim for sponsoring this December issue of the Newsletter.



**National Parkinson's Disease Society of Singapore**

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