Depression: Key Determinant in Quality of Life for People with Parkinson’s Disease
Lisa Marrin, RN, BSN, MA
OHSU Parkinson Center of Oregon

“I knew he would never be himself again. I still love him, or I would have left him long ago.” - Lisa Marrin

“Until I was diagnosed with PD, I had a purpose and value because of my job, my position in the community, I was a husband, a father. Afterwards, that was all taken from me. I have PD, what good am I?” I didn’t eat, sleep, want to start or finish any projects, or engage with family, friends, or colleagues—literally opposite of my upbringing, active personality. Yet people were talking about me. How I moved awkwardly, how I had changed. I would get panic attacks that felt like I was having a heart attack. I felt useless, abnormal, a burden. Why go on?” – Dan

Ever feel this way? You are not alone. People with Parkinson’s disease (PD) often suffer from depression and it is more likely to be undiagnosed and untreated. You might be thinking, “I have Parkinson’s disease! Of course, I’m depressed!” Or is it, “I’m depressed! Of course, I have Parkinson’s disease!” Both are valid. Depression can be caused by having a diagnosis of a chronic long-term illness such as PD, and it can be related to Parkinson’s disease itself, a result of changes in the brain chemicals (neurotransmitters) that control mood. In fact, depression may precede the diagnosis of PD by years. But it is treatable and, when addressed appropriately, it can make all the difference in the world.

Greatest Impact on Quality of Life

The National Parkinson Foundation (NPF) Outcomes Project, in which many OHSU Parkinson Center patients participate, reports, “A clear finding from our study is that, taken together, mood, depression and anxiety have the greatest effect on quality of life, even more than the motor impairments commonly associated with the disease.” It is estimated at least 40% of people with PD experiencing depression at sometime in their illness; so the impact is significant. But there are solutions as well.

Underdiagnosed, Untreated

Depression can be caused by many different things (diseases, medications, etc.). And when someone also has PD, it can be difficult for healthcare providers to discern if someone with PD has depression. Why is that? Well, take a look at the list below symptoms of depression. All the ones italicized may also be symptoms of PD. So PD complicates the picture. Therefore, many people with PD and depression may go undiagnosed or untreated.

Symptoms of Depression

- Feelings of sadness
- Decreased pleasure
- Hopelessness
- Helplessness
- Guilt
- Worthlessness
- Self-hate
- Thoughts of suicide
- Anxiety (see article by Dr. Hanna)
- Acrathy (see article by Dr. Denney)
- Sleep disturbances
- Fatigue or less energy
- Emotionless appearance
- Poor concentration
- Slow responses
- Weight loss/change
- Physical complaints

Continued on page 2
Anxiety disorders are quite common, and frequently overlooked, in patients with Parkinson’s disease (PD). Experiencing anxiety when facing a challenging situation, such as being diagnosed with a chronic medical condition, is understandable. Particularly with PD, individuals report fears and concerns about the quality of their lives as well as-day-to-day worries such as how effective their medication will be in treating their motor symptoms. If those worries and fears seem overwhelming and interfere with your ability to function and enjoy your life, you may be suffering from a clinical anxiety disorder.

The presence of anxiety in PD is not a new finding. In 1817 James Parkinson alluded to the presence of anxiety in the disorder when he noted an “apprehension of falling” in his original report, “An Essay on the Shaking Palsy.” Since Dr. Parkinson’s early observations, contemporary research studies have established that clinical anxiety, as well as depression, is a common non-motor symptom of PD. Anxiety occurs in nearly 40 percent of individuals over the course of their disease. Forms of anxiety often associated with PD include generalized anxiety, social phobia (including the fear of being judged in social situations), or panic disorder.

A multitude of mental and physical factors may contribute to the onset of anxiety in PD patients. In some cases, anxiety may originate largely from emotional reactions to PD symptoms. However, a growing body of research supports a hypothesis that anxiety is associated with the underlying physical cause of PD. There is evidence that the brain tissue responsible for PD motor impairment contributes to clinical anxiety symptoms in PD. What’s more, many report anxiety symptoms occurring in advance of detectable motor symptoms associated with PD.

Anti-parkinson drugs may also have a role in anxiety. It is important to determine whether anxiety symptoms are related to fluctuations in anti-parkinson medication effects. Many antidepressants, which are usually considered sedative, are metabolized by the liver and can contribute to a feeling of depression, such as those that might be causing a problem. In such situations, it is possible that adjustments to anti-parkinson medications are warranted, although other anxiety treatments may also be necessary.

Anxiety disorder is not a condition that a PD patient can simply will himself or herself out of. If left untreated, anxiety can have a disabling impact on the life of a PD patient. PD patients with anxiety report decreased quality of life, worse overall health outcomes (including increased likelihood of cognitive difficulties) and exacerbation of Parkinson’s symptoms. In fact, anxiety may have a greater impact on quality of life than motor symptoms alone.

Fortunately, anxiety is treatable. Psychotherapy, particularly Cognitive Behavioral Therapy (CBT), is an effective treatment for anxiety and depression disorders. Many antidepressant medications are also effective at reducing anxiety, particularly when combined with psychotherapy. The key to taking care of anxiety is first identifying it. Often it is those around you that may first identify symptoms of anxiety. It is important to let your doctor know if you or someone else thinks that you may be experiencing anxiety. Talking to experts and acquiring skills to manage this treatable component of your disease will help positively influence the quality of your life.

**REFERENCES**


Dopamine agonists. Be sure to check out the Medication Management section in our SDI Notebook to get back on your regular dose.

Anxiety is treated with medications that are typically used to treat depression and anxiety-related disorders; these include antidepressants and some sedative medications. Try to talk to your doctor about possible changes in your medication regimen. Keep a record of how you feel—after one dose of your PD medications and the dopamine agonists (Requip/Pramipexole and Mirapex/ropinirole) probably are the medications that most often cause sleepiness. The dopamine agonists generally cause more sleepiness than levodopa. Many patients note feeling very sleepy thirty minutes to an hour after taking a dose of these medications. Some people even experience sleep attacks with a sudden onset of extreme fatigue or sleep that is unexpected. These can be dangerous in regard to driving safety.

There are some general suggestions to help with daytime sleepiness. Try to maximize good sleep: this may include an afternoon nap. Be careful about avoiding sedating medications; these can include over-the-counter medications like Tylenol PM or Benadryl. Talk with your PD doctor about possibly changing some of your PD medications to longer acting forms or taking more levodopa and less of your dopamine agonists. Be sure to talk to your neurologist if you experience daytime fatigue. Low mood can often cause feeling of helplessness and increase the desire to sleep. Get regular exposure to sunlight and get regular exercise. If the above treatments are not effective and you do not have another sleep disorder, occasional cat-naps may be appropriate or some people may be helped by a medication called modafinil (Provigil).
APATHY & PARKINSON'S DISEASE

Nancy Nelson, Certified Personal Trainer

Do you find it hard to commit to regular exercise? Don’t feel bad, you are not alone. Seven out of ten people in our population do not exercise regularly. Given that statistic and, then, take into consideration that fatigue and apathy are two non-motor symptoms that no wonder it is hard for you to get started! Here are some tips to help you get motivated and stay motivated to exercise.

Find Personal Value in Exercise

Exercise, or the necessity for everyone but, is particularly important for people with Parkinson’s. It improves cardiorespiratory (heart-lung), neurological (brain) and musculoskeletal (bone-muscle) function and mobility. This results in greater independence daily activities and thus, less stress and burden for the care partner. Current research indicates that exercise may delay the progression of the disease. Regular exercise boosts the power of the brain neurotransmitters (chemicals that help brain cells communicate with one another and the rest of your body). And, finally, exercise makes you feel better! It can reduce depression, apathy and improve your state of mind. Exercise is a must, think of the long term health benefits!

Best Defense against Depression, Anxiety, and Apathy

EXERCISE--Get Started and Keep Going!

Nancy Nelson, Certified Personal Trainer

Find the Fun Factor

You don’t need to go to the gym to exercise if that sounds like a chore instead of something you want to do. You will be more likely to stick with a program if you enjoy what you’re doing. Ask yourself, “What are things I enjoy doing?” Then, figure out a way to incorporate them into your physical activity. Do you like to dance? Is the outdoors calling you? Perhaps you are a social person and enjoy being with people. A group activity would be a good choice. Or, is there a sport that you always wanted to try? Pursue what you want to do and be creative about finding ways to do it!

Enlist the Support of Others

You are not in this alone! Finding the support of others for both involvement and accountability can help you keep on track. Family and friends can be a great support system. An exercise buddy can help or sign up for an exercise class or even a PD-specific exercise group. In addition, there are exercise trainers trained in working with Parkinson’s patients who can help guide you, motivate you, and keep you safe in either groups or one on one in a gym or at your home.

Schedule Exercise at a Time That Works Best For You

Timing is everything! Take into consideration your medication cycle, sleep patterns and when you feel you are functioning at your best. That’s the time to exercise.

Nancy Nelson is a certified Personal Trainer and Fitness Specialist who over 20 years experience working with people with Parkinson’s disease. She has worked closely with the OHSU Parkinson’s Disease and Movement Disorder Center and has consulted to several research organizations in a variety of projects. As a Parkinson’s Disease Exercise Expert and owner and founder of PDEx, LLC, she implements community exercise programming that adheres to research based techniques in group, individual and one on one settings. She can be reached at 503.799.5311 or nancy@mydex.com.

Better methods of treating Parkinson’s disease (PD) are shared goals of medical professionals and the Parkinson community. The search for better methods uses health related quality of life (HRQL) as a measure of success or failure of various treatments. Better treatments should improve quality of life. To clinicians’ initial surprise, however, improvements in improved motor aspects of parkinsonism often had little impact on HRQL of patients. Subsequently, it was recognized that HRQL is heavily influenced by mood and anxiety. In fact, mood and anxiety are stronger predictors of quality of life than is the severity of the parkinsonism. That is, with mild parkinsonism but depression or high levels of anxiety is likely to have worse HRQL than those who have neither more severe parkinsonism but little depression or anxiety. The fact that mood and anxiety are so important for HRQL is good news; mood and anxiety are treatable. Even though anxiety and depression may be part of parkinsonism, worse HRQL than those who do not have severe anxiety and depression. HRQL depends on a wide array of drug and non-drug therapies. This includes things a person can do for themselves. One of those things is to ask your care provider for help if anxiety or depression are troublesome.

This issue of Parkinson Report is dedicated to anxiety, depression and apathy. Our intent is to help people recognize them as important targets for treatment and to enlist their clinician in coping with them.

With gratitude,

Dr. Denney

Nancy Nelson is a certified Personal Trainer and Fitness Specialist who over 20 years experience working with people with Parkinson’s disease. She has worked closely with the OHSU Parkinson’s Disease and Movement Disorder Center and has consulted to several research organizations in a variety of projects. As a Parkinson’s Disease Exercise Expert and owner and founder of PDEx, LLC, she implements community exercise programming that adheres to research based techniques in group, individual and one on one settings. She can be reached at 503.799.5311 or nancy@mydex.com.

Benefits of Exercise

• greater independence
• may delay disease progression
• reduce depression, anxiety, apathy
• improve sleep quality
• caregiver burden lessened
• safeguards your health in general and reduces the risk for heart disease
• increases HRQL
• improves strength and coordination
• reduce the risk of falls

Set Goals but Start Slowly

Set realistic goals for yourself. It is easy to lose motivation by doing too much, too soon. Start small and gradually build.

Stick With It!

Once you develop a habit of exercise, it gets easier. Take note of how you feel afterwards. I do not exercise regularly. Seven out of ten people in our population do not exercise regularly. Given that statistic and, then, take into consideration that fatigue and apathy are two non-motor symptoms that no wonder it is hard for you to get started! Here are some tips to help you get motivated and stay motivated to exercise.

Find Personal Value in Exercise

Exercise, or the necessity for everyone but, is particularly important for people with Parkinson’s. It improves cardiorespiratory (heart-lung), neurological (brain) and musculoskeletal (bone-muscle) function and mobility. This results in greater independence daily activities and thus, less stress and burden for the care partner. Current research indicates that exercise may delay the progression of the disease. Regular exercise boosts the power of the brain neurotransmitters (chemicals that help brain cells communicate with one another and the rest of your body). And, finally, exercise makes you feel better! It can reduce depression, apathy and improve your state of mind. Exercise is a must, think of the long term health benefits!

Best Defense against Depression, Anxiety, and Apathy

EXERCISE--Get Started and Keep Going!

Nancy Nelson, Certified Personal Trainer

Find the Fun Factor

You don’t need to go to the gym to exercise if that sounds like a chore instead of something you want to do. You will be more likely to stick with a program if you enjoy what you’re doing. Ask yourself, “What are things I enjoy doing?” Then, figure out a way to incorporate them into your physical activity. Do you like to dance? Is the outdoors calling you? Perhaps you are a social person and enjoy being with people. A group activity would be a good choice. Or, is there a sport that you always wanted to try? Pursue what you want to do and be creative about finding ways to do it!

Enlist the Support of Others

You are not in this alone! Finding the support of others for both involvement and accountability can help you keep on track. Family and friends can be a great support system. An exercise buddy can help or sign up for an exercise class or even a PD-specific exercise group. In addition, there are exercise trainers trained in working with Parkinson’s patients who can help guide you, motivate you, and keep you safe in either groups or one on one in a gym or at your home.

Schedule Exercise at a Time That Works Best For You

Timing is everything! Take into consideration your medication cycle, sleep patterns and when you feel you are functioning at your best. That’s the time to exercise.

Nancy Nelson is a certified Personal Trainer and Fitness Specialist who over 20 years experience working with people with Parkinson’s disease. She has worked closely with the OHSU Parkinson’s Disease and Movement Disorder Center and has consulted to several research organizations in a variety of projects. As a Parkinson’s Disease Exercise Expert and owner and founder of PDEx, LLC, she implements community exercise programming that adheres to research based techniques in group, individual and one on one settings. She can be reached at 503.799.5311 or nancy@mydex.com.
What is the effect of vitamin D on balance in Parkinson’s disease patients?

Purpose: The purpose of this study is to examine the effect of vitamin D on balance in Parkinson’s disease patients.

Participation Requirements: This study involves taking blood work and completing a survey. Eligible participants will receive $50 for their time and travel reimbursement. Can we detect Parkinson's disease with vitamin D deficiency?

Participation Requirements: This study includes a total of 4 clinical visits to the Portland VA Medical Center and/ or OHSU to receive balance testing, laboratory tests, and a survey. To participate, you must be diagnosed with Parkinson's disease and experience occasional or near falls. To find out whether they have a reduced sense of smell you can take the Smell ABC survey or by calling (877) 525-1212.

Can we detect Parkinson’s disease (PD) before the onset of symptoms?

Many of our participants tell us that they noticed a reduced sense of smell (called hyposmia) years before their PD diagnosis. There are many reasons why a person might lose their sense of smell (sinus problems being the most common) but we are now recognizing that a reduced sense of smell may be an early warning sign for people who have Parkinson’s disease. To emphasize, we are not suggesting that a reduced sense of smell is a definite indicator of PD. The screening tool is intended to be used as a first step to finding out whether a person has a reduced sense of smell. Can we detect Parkinson’s disease with vitamin D deficiency?

Participation Requirements: This study involves taking blood work and completing a survey. Eligible participants will receive $50 for their time and travel reimbursement. Can we detect Parkinson's disease with vitamin D deficiency?

Participation Requirements: This study includes a total of 4 clinical visits to the Portland VA Medical Center and/ or OHSU to receive balance testing, laboratory tests, and a survey. To participate, you must be diagnosed with Parkinson's disease and experience occasional or near falls. To find out whether they have a reduced sense of smell you can take the Smell ABC survey or by calling (877) 525-1212.

Can we detect Parkinson’s disease (PD) before the onset of symptoms?

Many of our participants tell us that they noticed a reduced sense of smell (called hyposmia) years before their PD diagnosis. There are many reasons why a person might lose their sense of smell (sinus problems being the most common) but we are now recognizing that a reduced sense of smell may be an early warning sign for people who have Parkinson’s disease. To emphasize, we are not suggesting that a reduced sense of smell is a definite indicator of PD. The screening tool is intended to be used as a first step to finding out whether a person has a reduced sense of smell. Can we detect Parkinson’s disease with vitamin D deficiency?

Participation Requirements: This study involves taking blood work and completing a survey. Eligible participants will receive $50 for their time and travel reimbursement. Can we detect Parkinson's disease with vitamin D deficiency?

Participation Requirements: This study includes a total of 4 clinical visits to the Portland VA Medical Center and/ or OHSU to receive balance testing, laboratory tests, and a survey. To participate, you must be diagnosed with Parkinson's disease and experience occasional or near falls. To find out whether they have a reduced sense of smell you can take the Smell ABC survey or by calling (877) 525-1212.

Can we detect Parkinson’s disease (PD) before the onset of symptoms?

Many of our participants tell us that they noticed a reduced sense of smell (called hyposmia) years before their PD diagnosis. There are many reasons why a person might lose their sense of smell (sinus problems being the most common) but we are now recognizing that a reduced sense of smell may be an early warning sign for people who have Parkinson’s disease. To emphasize, we are not suggesting that a reduced sense of smell is a definite indicator of PD. The screening tool is intended to be used as a first step to finding out whether a person has a reduced sense of smell. Can we detect Parkinson’s disease with vitamin D deficiency?

Participation Requirements: This study includes a total of 4 clinical visits to the Portland VA Medical Center and/ or OHSU to receive balance testing, laboratory tests, and a survey. To participate, you must be diagnosed with Parkinson's disease and experience occasional or near falls. To find out whether they have a reduced sense of smell you can take the Smell ABC survey or by calling (877) 525-1212.

Can we detect Parkinson’s disease (PD) before the onset of symptoms?

Many of our participants tell us that they noticed a reduced sense of smell (called hyposmia) years before their PD diagnosis. There are many reasons why a person might lose their sense of smell (sinus problems being the most common) but we are now recognizing that a reduced sense of smell may be an early warning sign for people who have Parkinson’s disease. To emphasize, we are not suggesting that a reduced sense of smell is a definite indicator of PD. The screening tool is intended to be used as a first step to finding out whether a person has a reduced sense of smell. Can we detect Parkinson’s disease with vitamin D deficiency?

Participation Requirements: This study includes a total of 4 clinical visits to the Portland VA Medical Center and/ or OHSU to receive balance testing, laboratory tests, and a survey. To participate, you must be diagnosed with Parkinson's disease and experience occasional or near falls. To find out whether they have a reduced sense of smell you can take the Smell ABC survey or by calling (877) 525-1212.
DEPRESSION IN PD

continued from page 2

Exercise. Yes, this is one of the best depression-busters ever! This can be difficult if you are depressed though, so pull out all the stops and strategies to get yourself out there—partner with a friend to walk or attend exercise class every day, get a dog (studies have shown people with dogs exercise more) or experiment, but tell your neurologist so you can plan together an exercise class.

How did Dan fail? He’s now the poster child for overcoming depression in PD. With the help of his wife Pat (whom he says, “takes no prisoners”), and his neurologist, who reached him when she said, “Pat wants her husband back.”

Dan started on an antidepressant, went to counseling, reconnected with friends, became an active PD research participant, an exercising fool, and dedicated advocate for people with PD. He is amazing and his positive attitude is infectious! In fact, we’ve nicknamed him “Turbo Dan” for his tireless commitment to supporting the PCO (he and Pat are co-chairs for our Flaws for Parkinson’s fundraiser). Needless to say, his wife, Pat, is a saint.

Yes, Dan & Pat expect to see you at Paws for Parkinson’s on July 13th to support the PCO.

If you would like to talk to Dan about his experience with overcoming depression, he can be contacted through our office at 503-644-7271 or johannah@n.org.

ASK THE EXPERTS

Your Questions, Answered

There is more and more information available about hospitalization and PD, but what about for a day procedure, like a colonoscopy. Are there any special things to consider?

PEER-TO-PEER INSIGHTS

PREPPING FOR A COLONOSCOPY

Nick Kaiser brought to my attention that there is very little discussion about common day-procedures—specifically colonoscopies—and how to prepare for these when you have PD. So he offered to share what he had learned.

“Because I was to drink the Colyte (prep solution to clear the gastrointestinal tract prior to a colonoscopy) the evening before my procedure, I spoke with my neurologist and pharmacist. On their advice, I moved my normal 5:30pm dose of carbidopa-levodopa to 4:30pm, allowing 1.5 hours between my carbidopa-levodopa and Colyte to allow for maximum absorption of l-dopa. I got up at 3:30 am to take a dose of carbidopa-levodopa, which was 4 hours prior to my scheduled procedure time of 8 am. As soon as possible after my procedure, I got back on my normal schedule of taking carbidopa-levodopa. Some gastroenterologists have you drink half of the prep the night before and the other half four hours before the procedure. That might make it more difficult to keep as close to your schedule as possible, so discuss it with your GI doctor and see if he/she can help to accommodate your PD medication schedule.”

We find Nick’s advice sound and suggest the following guidelines for day-procedures:

- Notify your neurologist of the procedure
- Discuss with the doctor doing the procedure the critical timing of your PD medications
- Stop the dopa (l-dopa) for at least 12 hours from the doctor’s last prescription
- Bring with you (pill box) the medications from the doctor’s last prescription and bring in one with you
- Adjust timing for maximum absorption of PD meds on higher advice
- Plan procedure time to allow for maximizing your dosing schedule
- Start as soon as possible after the procedure to get back on your regular dose.

I’m still working, but know that I may need to step sooner than I would have liked because of the progression of my PD. What is the best way to prepare for that process?

DOCTORS DOCUMENT, DOCUMENT, DOCUMENT

Thinking of applying for disability... even? A word to the wise, start documenting now how your PD symptoms impact your job. Using your job description (skills, duties, responsibilities) as a guide, keep a diary over time noting changes to your ability to function successfully in your job. Note the type of accommodations you’ve made to maintain productivity. Consider how fine motor tasks (use of fingers/hands) are affected; how gross motor tasks (walking, stair-climbing, lifting, sitting, standing) are impaired; how much you fatigue; how long it takes to think, type, analyse, etc. Be as detailed and specific as possible.

Not sure where to begin? Go to the Parkinson Action Network (PAN) website and download their helpful Parkinson’s Disease Work-Related Disability Assessment form (www.parkinson-action.org/form). Update the work-skills diary and/or the PAN form every time you go to see your neurologist and share it with him/her, asking that it be made part of the visit notes. We have found that this sort of documentation, placed in the record overtime, can be essential in any emergency situation. The information on your ID bracelet signals that this individual has PD and you are the person with Parkinson’s disease. The NPF, 1-800-4PD-ID (473-4636), is engraved on the back of the bracelet.

Aware in Care: NPF Offers Free PD ID Alert Bracelet

The National Parkinson Foundation (NPF) now has produced a Parkinson’s Medical ID bracelet that is now available at no cost for individuals to order as a separate item from the popular Aware in Care kit. The Aware in Care Parkinson’s Medical ID bracelet together with the Medical Alert wallet card is a simple and effective way for patients to communicate their special medical needs in any emergency situation. The bracelet signals that the individual is a person with Parkinson’s disease. The NPF, 1-800-4PD-ID (473-4636), is engraved on the back of the bracelet.

Individuals can order their bracelets online from http://www.parkinson.org/store or they can request one by contacting the Helpline at 1-800-4PD-ID.INFO (473-4636) or sending an email to helpdesk@parkinson.org.

EVENTS REPORT

OSU PCO Working for YOU!

Education and continuous improvement is something we all benefit from, whether we are personally fighting a disease or trying to find ways to help manage it. That is why the OHU Parkinson Center of Oregon sees our patients and their families as partners in improving care and finding a cure for PD. Here are a few recent events, we hope made a difference in your lives. It did in ours.

Education for People with PD

INSIGHTS & INSPIRATIONS - The Portland Art Museum was the perfect location for this year’s Insights & Inspirations conference for young people with PD. Held March 25th in collaboration with the Brian Grant Foundation, over 100 participants learned about nutrition, research, agility exercise, relationship building, and how the law can help people with PD continue in their jobs. Finally, everyone was treated to a wine reception and opportunity to tour the art gallery.

CAREGIVER CONNECTIONS - An evening of wine, education, and good conversation marked this 2013 gathering of approximately 80 caregivers in Portland. Experts presented on a variety of topics aimed at helping the caregiver connect better with their loved one and to ensure they take care of themselves as well. Participants put into practice self-care by enjoying another one’s company over wine and hors d’oeuvres to start and dessert and coffee to end. The time of interaction and sharing with those who understand is a unique opportunity for repose.

Professional Education

Improving Care in Your Community

OHU Parkinson Center TSAM-PD (Therapists Educated and Aligned in Managing-PD)

MENTAL HEALTH - A training to improve outcomes for patients with PD counseled for depression, anxiety, and psychosis. This program targeted counselors, psychologists, and mental health providers.

PHYSICAL THERAPY & EXERCISE TRAINERS - A unique one-of-a-kind program for physical therapists and trainers. Not only were a variety of well-researched exercise modalities demonstrated, but participants were introduced to a new model for continuity of care from clinic to community and back.

PRIMARY CARE

Additional presentations sought to educate general practice healthcare providers on a best-practice, comprehensive care model for treating PD.
The annual PD artists fair. So all of you highly talented PD artists and hobbyists, contact us if you would like to display your work at this year’s symposium and inspire others to find their creative side and express it! Registration will open July 31st online at www.ohsubrain.com/pco or call 503-494-7504. We hope to see you there!

Thirty years of symposia! We are honored to have Dr. John Hammertalld who was the Parkinson Center of Oregon's first keynote speaker, Dr. Hammertalld still practices at the Center and is an OHSU Professor Emeritus, having participated in major research projects that helped advance care in PD over the years.

Joining Dr. Hammertalld are other PD experts--Dr. Chung, Krackeck, and Peterson—who will tell you more about the latest happenings in PD treatment and care for both motor and non-motor symptoms. Lots of valuable, practical information for all who live with PD.

But there is more! This year we look forward again to our biannual PD artists fair. So all of you highly talented PD artists and hobbyists, contact us if you would like to display your work at this year’s symposium and inspire others to find their creative side and express it! Registration will open July 31st online at www.ohsubrain.com/pco or call 503-494-7504. We hope to see you there.