

fluid and consuming a diet rich in bulk with green leafy vegetables and bran. Agents that promote gastrointestinal (GI) motility can also be helpful. Several recent studies are evaluating the effect on constipation of agents that interfere with inflammation and alpha synuclein misfolding in the GI tract.

Sleep disturbances are common in PD patients, with many experiencing fragmented sleep with excess daytime sleepiness. Restless leg syndrome, sleep apnea, and other sleep disorders also occur with increased frequency and should be treated as appropriate. REM behavior disorder (RBD) is a syndrome composed of violent movements and vocalizations during REM sleep, possibly representing acting out of dreams due to a failure of motor inhibition that typically accompanies REM sleep ([Chap. 31](#)). Many PD patients have a history of RBD preceding the onset of the classic motor features of PD by many years, and most cases of RBD eventually go on to develop an α -synucleinopathy (PD or MSA). Low doses of clonazepam (0.5–1 mg at bedtime) are usually effective in controlling this problem. Consultation with a sleep specialist and polysomnography may be necessary to identify and optimally treat sleep problems. Excess daytime sleepiness can be problematic for PD patients, and therapies such as Xyrem that are effective in narcolepsy are currently being evaluated in PD.

NONPHARMACOLOGIC THERAPY

Gait dysfunction with falling is an important cause of disability in PD. Dopaminergic therapies can help patients whose gait is worse in “off” times, but there are currently no specific therapies for gait dysfunction. Canes and walkers may become necessary to increase stability and reduce the risk of falling. An effective therapy for gait impairment is an important unmet need in PD.

Freezing, where patients suddenly become stuck in place for seconds to minutes as if their feet were glued to the ground, is a major cause of falling. Freezing may occur during “on” or “off” periods. Freezing during “off” periods may respond to dopaminergic therapies, but there are no specific treatments for on-period freezing and the mechanism is not well understood. Some patients will