

# Rapid Eye Movement Sleep Behaviour Disorder



We asked Ray Chaudhuri, Professor of Movement Disorders and Clinical Director of the Parkinson Foundation Centre of Excellence, Kings College Hospital, to explain what REM sleep disorder is, how you can recognise it, and whether it can be treated.

## **What is Rapid eye movement (REM) sleep behaviour disorder (RBD)?**

Rapid eye movement sleep behaviour disorder — is a sleep disorder characterized by the acting out of dreams that are vivid, often intense, and frightening. People with RBD do not experience the normal temporary paralysis of arms and legs (atonia) during REM sleep, and have been known to yell or talk while asleep, to carry on conversations or hit themselves or their bed partner (dream enactment behaviours). Many studies have been carried out to identify the brain systems responsible for the genesis of RBD , and have led to the identification of a complex but comprehensive network localized mainly in the brainstem, the posterior stalk-like part of the brain, that connects the cerebrum with the spinal cord.

## **What are the main symptoms of REM sleep behaviour disorder (RBD) and how does someone know if they have it?**

Acting out your dreams are the main symptoms, usually starting two hours after you fall asleep sleep and occurring mainly in the second part of the night. These behaviours are often related to self-defence, or defence of others, against attacks by unfamiliar people and animals. Indeed, most people describe the dream content as nightmares, with people and animals attacking them or their loved ones, and such content is unpleasant. The onset of REM sleep behaviour disorder is often gradual and it can get worse with time.

## **How do you test for REM sleep behaviour disorder in Parkinson's?**

Noting down a history of dream enactment behaviours can provide a probable RBD diagnosis that needs further confirmation using video-polysomnography, a technique combining polysomnography and video-recording. Polysomnography records brain waves and monitors your sleep stages and cycles to identify if, or when, sleep patterns are disrupted. To diagnose RBD, video-polysomnography should document the loss of muscle atonia during REM sleep. If Polysomnography is not available a good history from the bed partner or the use of a specific questionnaire known as the RBD questionnaire may also be useful. Awareness of the condition is important.

### **How common is REM sleep behaviour disorder in Parkinson's?**

In general, between 30% and 50% of people with Parkinson's disease have RBD. In some people RBD can precede the onset of Parkinson's, but it can occur across any stage. RBD seems to be more frequent in men.

### **What lifestyle changes or coping strategies can help people deal with the condition?**

Modifying sleeping arrangements should be the first step, specifically maintaining a safe sleeping environment for both the person with Parkinson's and their bed partner - as sometimes the condition could result in falling out of bed, or injury. It's often useful to put a mattress on the floor, pad corners of furniture, protect windows, and remove potentially dangerous objects from the bedroom. Two types of medication are commonly used to treat RBD: clonazepam and melatonin. Clonazepam is suggested for the treatment of RBD but should be used with caution in those with dementia, gait disorders, or sleep apnoea. Melatonin can also be useful and has the advantage of fewer side effects. A longer acting version of melatonin may also be used. In some subjects only higher doses of melatonin work.

It's also a good idea to avoid alcohol intake, as this can trigger or aggravate RBD.

### **Are the physical reactions involved in REM sleep behaviour disorder (RBD) always violent?**

No. RBD can present itself in many ways. Although violent behaviour may occur, most movements during RBD are simple elementary ones. A large range of non-violent behaviours, such as laughing, singing, and dancing. , Even smoking an imaginary cigarette has been reported!

### **What key information should carers and family members know about REM sleep behaviour disorder (RBD)?**

Many people with Parkinson's might not even be aware they are exhibiting these behaviours, or remember having active dreams. And they might not have any cognitive impairment that precludes the report of a positive history. So it's good for bedpartners to let their partners, and their partner's doctor, know if this is happening. If you're a bed partner and you are witnessing this aggressive activity, please be assured the activity is not related to unconscious resentment or anger towards you, but by an alteration in REM sleep physiology that can be treated.

### **Is there any interesting new research in this field that brings hope to people with Parkinson's?**

Unfortunately, up to now, lack of clinical trials in treatment of RBD means that treatment of RBD has been slow to materialise. Some such trials are now underway. And there is now growing recognition that use of experimental neuroprotective agents may be more useful if used at an RBD stage and may provide a pathway to future developments.