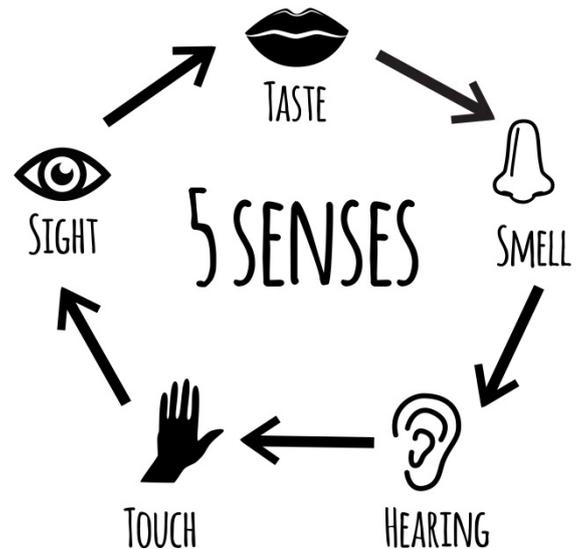


# RESEARCH CLUB 1

By Dr Jon Stamford

## Something smelly

In the very first meeting of the Research Club, we took a new slant on an old finding. For several years now it has been known that people with Parkinson's lose their sense of smell, sometimes before they develop the condition itself. Loss of sense of smell (anosmia) is of course more than just a minor inconvenience. There are circumstances when it can be dangerous. For instance gas leaks, toxic chemicals all pose hazards to people with anosmia. So the ability to smell things is important. Equally important is the confidence one has in one's sense of smell. It's just as hazardous to think you can smell something when in fact you can't.



In this meeting we looked at commercial and home-made smell tests. Not only did we measure objective ability to smell but we also tested the level of confidence of identification. In simple terms we used mainly scratch and sniff panels and asked study participants to do two things. Firstly, they were asked to identify the smell from a choice of four. Secondly, they were asked to say how confident they were of their answer.

There was a big difference between people with Parkinson's and the controls (see graph). Not only with the controls able to correctly identify more smells overall than the PwPs, but their confidence levels were much higher. PwPs identified far fewer smells than non-patients.

Research Club 1 pic SarahBut the graph also shows another more interesting finding. In the control group, confidence more or less predicted accuracy as one might expect. Where individuals were able to say that they were confident or nearly certain of the identification, they were usually correct.

Similarly, when they lacked confidence, their accuracy was poorer. This is as one would predict. But in the PwPs, the pattern was different. There was no clear relation between confidence and accuracy. In general PwPs were rather overconfident in relation to accuracy. When controls realised they were struggling to identify a smell, they were less confident. When PwPs were tested, they were more confident than their accuracy predicted.

What does this mean? Probably the take-home message is that PwPs are overconfident in circumstances where it is not justified. In the real world, this may translate into risk-taking behaviour.