

ONLY SMART PILLS HAVE THE ANSWER?

'Smart pills' are becoming increasingly popular among career women. But do they really boost your brain power? *Stylist's* Lizzie Pook plays human guinea pig to find out

It's 3pm in the *Stylist* office and my heart is racing. I feel sick – a nausea laced with an underlying sense of dread – and a numbing headache is burrowing its way through my brain. The phone's not helping either; it's ringing, ominously. I steel myself and pick up the receiver. "Hhhellooo," I slur, wiping the sweat from my forehead. A polite gentleman on the other end of the line asks me a question. I wait for a moment, then launch into a rambling reply. There's an awkward silence. Oh god. What did I just say? I'm struggling to even remember my own name at the moment, so who knows what just came tumbling out of my mouth. It's no surprise I'm losing control of my verbal reasoning, though. It's not

often you find yourself completely off your face at work.

I've been taking drugs at my desk for three days now. Not on the sly – I haven't been sneaking to the loo to snort lines of cocaine, or using my lunch breaks to puff on marijuana. Instead, like thousands of women in offices throughout the UK, I am taking 'smart drugs'.

These 'wonder pills' are becoming something of an underground trend. Research suggests that more and more UK career women are turning to internet-bought stashes of prescription-only drugs such as Modafinil and Ritalin; drugs which, when applied to a healthy brain, can boost certain chemicals including dopamine and noradrenalin, causing 'welcome' side effects including improved concentration, productivity

and memory to see them through tense presentations, important meetings and all-nighters in the office. Users describe ploughing through tasks at breakneck speed, outperforming colleagues and possessing an almost tunnel vision-like sense of focus. Effects which could help explain why a recent study by science journal *Nature* found that as many as one in five people in the UK have tried cognitive enhancing drugs.

I'm told by Barbara Sahakian, professor of clinical neuropsychology at Cambridge University, that Modafinil – a 'wakefulness-promoting' drug, intended for the treatment of sleep apnoea and narcolepsy – has actually been used by the military for years, as well as by strung-out shift workers in the US and

emergency doctors in the UK who need more than caffeine to keep them awake overnight. But it only takes a quick Google search to see how readily available these drugs have become. Within minutes anyone can source and buy a pack of Modafinil as if it was Vitamin C. Modafinil is a prescription-only drug, but it's not a controlled substance under the 1971 Misuse of Drugs Act, so it's not illegal to be caught in possession of it. But it is an offence to supply it, which includes everything from dealing to just giving it to a friend. Ritalin, however, is a Class B drug, which means possession of it without a prescription is illegal, and can carry a prison sentence of up to five years.

"There has been a virtual doubling of prescription stimulants in the past 10 years in the UK, but we can't regulate the amount of cognitive enhancers sold online and used off-label [using a drug for a purpose other than its intended use]," says Sahakian. "We do know the numbers are huge, though. Everyone wants that extra edge in their career and it's already hard enough for us to have a work/life balance. People are turning to these drugs to cope."

One of the biggest groups of off-label users, says Sahakian, is actually academics, who use the drug to tackle jet-lag when presenting abroad or even, for some, as a means of cognitive 'self-improvement.' Dr Anders Sandberg is a neuroscientist at Oxford University's

Future of Humanity Institute – which investigates how technology will affect the human race – and has openly used Modafinil. "I use the drug only occasionally but when I take it, it's like having a little electric motor in the back of my head running through lists of things I need to do," he has said. "Then, instead of putting them off until tomorrow, I go ahead and do them." Many of these academics are of the view that it wouldn't be called enhancement if it wasn't good for you. For them, it's no different to using glasses to enhance your vision. Indeed, some experts predict that in the near future most of us will be taking these drugs as a form of supplement anyway, so is it any surprise that time-pressed, career-driven individuals are keeping secret stashes in their desk drawers? That they are using them for that extra 'brain-boost' or to see them through the week when stress and

THE DRUGS DON'T WORK. OR DO THEY...?

Lizzie compared her normal reaction to everyday tasks at work with her response while using Modafinil

TRANSCRIPTIONS

I hate transcribing interviews (typing up audio recordings word for word), so off the drugs, doing this 30-minute tape was full of procrastination. It takes me three hours to complete.

It's different on the Modafinil. I'm so focused and there's no dithering or switching tasks. I transcribe a 20-minute interview without distraction in about 45 minutes.

IQ TESTS

No IQ test can be completely accurate and objective but I find a pretty legitimate-looking one online that takes about 30 minutes to complete. I achieve a decent score of 141.

I have to force myself to concentrate on this on day three. It feels a lot harder. I clock up 135. Not awful, but not the 20-mark improvement I had been promised.

RESPONDING TO EMAILS

This is a hard one to measure. Of about 250 that I receive a day, I manage to skim-read all of them, but only respond to about a quarter, flagging up important ones to follow up.

I definitely respond less after taking Modafinil. I am much more interested in other tasks like writing or organising my desk. I don't trust myself to respond coherently so reply to only 40.

OVERTIME

On an average working day, I do about 45 minutes to an hour on top of my normal hours.

None. My brain is so fried by day three I can't stand being at my desk for a minute more than I have to be.

tiredness threaten to diminish their performance?

"I first took Modafinil when I had an important presentation to prepare and I'd been working until 2am the night before," says Sam, 29,

"WILL I SUDDENLY BE INTERESTED IN THE MINUTIAE OF THE LONDON UNDERGROUND? WHAT IF I HAVE SOME SORT OF BREAKDOWN?"

a marketing executive from Balham. "I was given a few pills by a friend who had taken it while studying and thought I'd give it a shot. I work hours of overtime, so I didn't feel guilty about taking something that would level the playing field with my colleagues. The results were quite comical. I found myself drawing up huge Excel spreadsheets and becoming really focused on boring admin tasks.

I've taken it since, but only once. I wouldn't make a habit of it."

It is important to consider that little is known about the habit-forming capabilities of prescription drugs such as Modafinil. Interestingly,

research is being conducted into it as a possible method to treat cocaine addiction. According to Sahakian though, for the most part, people take the drug as a one-off, or for a period of a few days to see them through a phase of intense work. Also, seeing as the drug shouldn't be mixed with caffeine or alcohol, it is hard to incorporate into everyday life. Its listed side effects probably

don't help either: insomnia, nausea, headaches, anxiety... It also renders other drugs such as the contraceptive pill obsolete.

Still, I'm strangely intrigued by what a drug that makes filling a tax return interesting could do for me. So after searching for an online pharmacy, I settle on 10 100mg Modafinil tablets (£4.49, with £20 for delivery) with a view to taking two a day, for three days. Within a week the drugs arrive on my desk in a nondescript A4 plastic envelope. It does cross my mind that I might be breaking the law, but technically I'm on the legal side of an illegal transaction (the 1968 Medicines Act states it is an offence to supply a drug without prescription, but not to buy one).

However, even though they've been through rigorous medical testing there is no guarantee that these drugs are safe. Even the experts aren't sure about long-term effects – and you certainly should not even consider taking Modafinil if you have any medical problems such as high blood pressure or a heart condition. But given that people take risks with their health every day – when they puff on a cigarette or order that third glass of wine – I'm of the view that everyone has the responsibility to decide what they put in their own bodies. So I'm choosing to take this risk. That doesn't mean I'm not anxious. Losing control at work is a horrendous prospect. But losing control of my brain is the most terrifying thing I can think of. Here's what happened:

DAY ONE

In my hand is a pill slightly smaller than the average paracetamol tablet. It's white, smooth and smells faintly of sulphur. At its best it promises to make me more creative, boost my IQ by 20 points and send my productivity levels through the roof. But I am nervous. I keep thinking about a Bill Bailey sketch where he talks about dropping acid and spending hours intricately studying the angles of a chair leg ("forms an N, forms an N, forms an N"). Is this going to happen to me? Will I suddenly have an unhealthy interest in the minutiae of the London underground system? What if I wind up having some sort of drug induced breakdown? I've been told by a GP friend that while he thinks it's silly to take a drug that's not

prescribed for me, he doesn't think it'll cause me harm. Still, I'm a bit concerned.

I eventually take my first Modafinil at 10am on a Monday morning. I've got an impossibly busy day ahead and I'm hoping this will perform some sort of miniature miracle. By 10.30am I start to feel its effects. Firstly, and rather oddly, my peripheral vision seems to widen. Everything becomes very sharp and bright. As our production editor, Gareth, talks us through next week's issue, I notice a butterfly picture behind him. 'Ah, a Purple Emperor,' I think, and do a mental double-take. Where did *that* come from?

Later, my brain definitely feels like it's working faster. I'm just so interested in everything. I read news stories about Mexican drug cartels with disproportionate excitement. I see a reference to children's TV show *Rastamouse* on Twitter and decide it would be interesting, actually, to watch it. I plough through my workload with unnerving speed and bash through interview transcriptions without any distractions. "I've never seen you typing so quickly," laughs one of my colleagues. I look down and see my hands moving cartoonishly fast.

But, around lunchtime, things start getting a little weird. Everything around me appears extremely bright, almost dazzling. And there are flashing spots in front of my eyes. I worry for a moment that I'm going blind (coincidentally, anxiety is a major side effect of Modafinil). My appetite has been completely wiped out, too. All I manage is one banana, a mug of milky cereal and crisps.

Things get even worse that night in bed. I lie there in a state of paranoia imagining various burglar-coming-through-the-window scenarios. After hours of tossing, turning and huffing, I eventually get to sleep at 4am.

DAY TWO

Surprisingly, I wake up feeling quite alert. Even though I've already experienced some negative side effects, I'm excited about what I'll achieve on the drugs today.

In my mind, I'm more articulate on Modafinil and am able to express



myself better (on paper at least). I feel like I'm producing some of my best work ever. But, in truth when I look back on my notes post-drugs I realise that everything I've written is utter drivel.

I'm also noticing myself becoming increasingly scatty, and my spatial

"IT FEELS LIKE MY BRAIN IS WORKING MUCH FASTER THAN MY MOUTH"

awareness seems to be deteriorating, too. I knock into things, and people. It feels like my brain is working much faster than my mouth as I stammer my way through even the most basic sentences. And while I felt calm on the drug at first I start to get frustrated if things don't come to me immediately. I get genuinely irritated when I can't remember the words 'Lindt chocolate truffles'; I'm on the pills, I should remember *everything*.

Then there's the paranoia. Whenever I say anything to my colleague, Amy, I feel like she is looking at me with an expression of utter incredulity. This is probably because my people skills have been wrecked by the Modafinil. I feel a little drunk and it's almost as if I don't trust myself. It's unnerving.

Ironically, I'm now performing well below my normal mental function. I'm burning up and have a huge red flush across my chest. I'm incredibly thirsty, too, refilling my 1.2 litre water bottle three times a day. I also feel like my nose is about to bleed. I read one story of a woman

who stayed awake on Modafinil for 60 hours and became temporarily blind with a nose gushing blood. Am I going to be the next horror story?

I lie awake until 3am that night. My boyfriend says the drugs are making me "loopy" and urges me to stop.

DAY THREE

The final day brings a faint underlying sense of dread. I can tell in my fuzzy drug-addled state that I can't engage with people as easily as I would



normally. It's as if I've become completely apathetic. It's impossible to make small talk as I'm either so paranoid that what I'm saying isn't actually words or, frankly, I just don't care. That evening, I don't ask my boyfriend how his day was, or call my

mum. It's like the drugs have zapped me of empathy. It's hard to tell if it's the pills or lack of proper sleep that's having an effect, but I feel a little bit like a lobotomy patient. I stare blankly at my computer screen, failing to achieve, well, anything really.

I feel a little let down, but ultimately relieved when I stop taking the pills. I was expecting to spend hours at my desk, reeling off some groundbreaking journalism or ploughing through piles of previously undesirable tasks. Instead, I became a paranoid gibbering wreck. Why didn't they work for me? "Modafinil affects key neurotransmitters and multiple hormone systems in the brain, including dopamine, noradrenalin and histamine," says Dr Mitul Mehta, psychopharmacologist and senior lecturer at King's College London. "If you've already got high levels of these chemicals in your brain these drugs might, in fact, have a negative effect." Oh.

So it's certainly a gamble, then, but I can see why in some cases the promise of even slight cognitive enhancement is appealing for the over-stressed or highly competitive. However, they didn't help me achieve anything I wouldn't have been able to do without more effort – and the unsettling side effects just weren't worth it. As Dr Sandberg says, "These drugs are like step-ladders. If you need them to attain something that would otherwise be out of your reach, then use them. But if you can reach those heights anyway, you're just being lazy." I think I agree.

THE SMART PILL GLOSSARY

Modafinil is not the only drug finding its way into our offices. We profile the rest

RITALIN

What does it do? Typically prescribed for children with ADHD, it's a central nervous system stimulant to increase alertness and productivity.

Is it legal? No. As a class B drug it's illegal to buy in the UK without a prescription.

How do people get it? Some ADHD sufferers will sell them on to professionals and students. A handful of websites will offer it for around 50p a pill.

THE MAGNETIC PILL

What does it do? It's a natural brain supplement that claims to give you heightened consciousness and creativity.

Is it legal? Yes.

How do people get it? Available online, one month's supply is £31.50.

ALPHA BRAIN

What does it do? It claims to improve focus, help you to stay calm and extend REM sleep, creating lucid dreams and boosting creativity.

Is it legal? Yes.

How do people get it? Available online, 30 capsules will cost you £22.50.

PROPRANOLOL

What does it do? It's a beta blocker which reduces the effect of certain chemicals in the body, minimising symptoms of stress and anxiety like rapid heart rate.

Is it legal? Yes, but only with a prescription.

How do people get it? As with most prescription drugs it can be bought online from off-shore pharmacies.

CEREBRAL SUCCESS

What does it do? Apparently it provides the same perks as Ritalin while maintaining the safety of a supplement.

Is it legal? Yes.

How do people get it? Online at £45 for a bottle of 60 capsules.

