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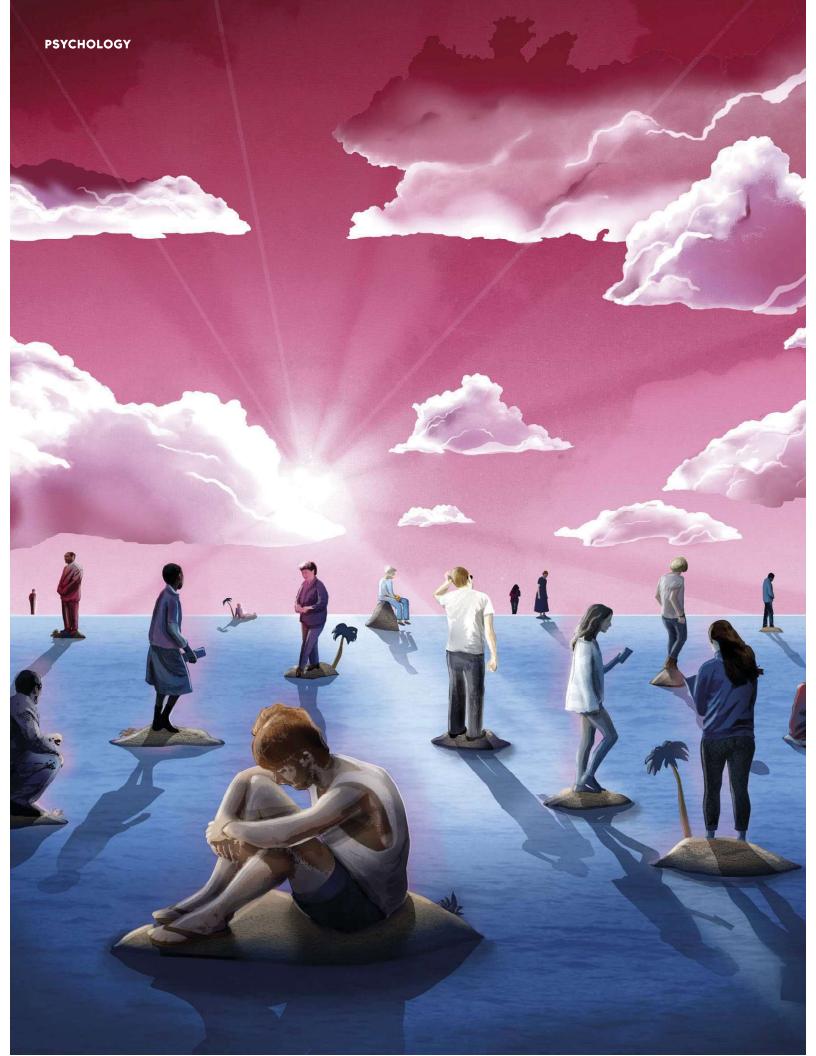
BBC2's Gardeners' World returns to our screens on 9 March. Get the lowdown on the new series in the March issue – our TV special with exclusive cover and pages dedicated to the programme, including interviews with the presenters and a plan of Longmeadow.



Longmeadow garden plan in this issue

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ACOU ARE NOT ALONE

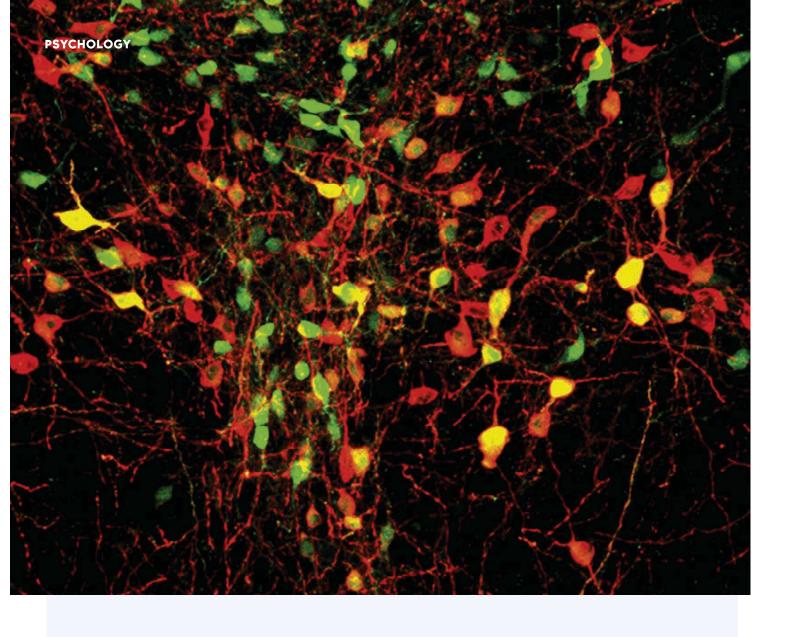
Loneliness is worse for you than smoking, and more harmful than obesity. As the number of lonely people in the UK swells, we investigate why feeling alone literally hurts, and how we can stop it from making us ill

WORDS: MOYA SARNER



Visit bit.ly/bbc_lonely to take part in the BBC's Loneliness Experiment and help create what could be the world's largest ever survey of its kind on loneliness.





oday, society is becoming ever more divided. But if there is one thing that's bringing everyone together, it's loneliness. Scientists, doctors, charity workers and politicians from across the political spectrum all agree that loneliness is a big problem. A report published in December 2017 by the Jo Cox Commission revealed the staggering extent of loneliness in the UK. Almost one-quarter of parents surveyed by the charity Action for Children said they were "always or often lonely", more than one-third of people aged 75 and over told Independent Age that their "feelings of loneliness are out of their control", and over the course of a year more than 4,000 children called Childline because they felt unbearably lonely – some as young as six years old. One recent study found that nine million adults in the UK suffer from chronic loneliness: if all the lonely people moved to one city, it would be bigger than London.

This isn't just sad—it's dangerous. Research shows that experiencing chronic loneliness is as bad for our health as smoking 15 cigarettes a day, and worse than obesity. It is associated with an increased risk of developing coronary heart disease and stroke, and increases your likelihood of early mortality by 26 per cent. But how does this happen? How can an emotional experience be so bad for our physical health? Prof Steve Cole, a medicine and genomics researcher at the University of California, Los Angeles, says part of the answer may

ABOVE: In one study, MIT researchers have found that feelings of loneliness can be traced to the brain's dorsal raphe nucleus (pictured)

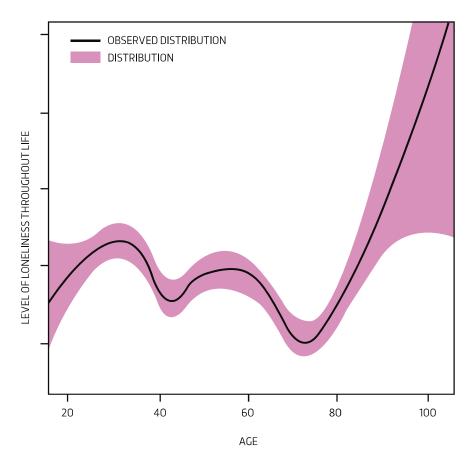
RIGHT: In January this year, Tracey Crouch was appointed the minister for loneliness, in response to rising levels of loneliness and social isolation



LONELINESS THROUGOUT LIFE

"We know from population studies that there are two big peaks of loneliness over the lifespan: one in young adulthood and one in older age," says psychiatrist Dr Farhana Mann. While causes of Ioneliness in later life may seem obvious, provoked by the loss of social networks that can come with retirement, bereavements and mobility problems, loneliness in adolescence happens for different reasons. "Chronic Ioneliness exists in young people, particularly those who are ostracised. The social world of adolescents is perilous because frankly, that is the most status-conscious period of our individual trajectories. That is when young people can feel least valued by their peers. There is an incredible level of competition that comes from the primed reproductive system, and people who don't fare well feel incredibly bereft," says Prof Steve Cole, a researcher at the University of California, Los Angeles.

For Dr Juliet Wakefield, senior lecturer in psychology at Nottingham Trent University, the question is less about age and more about life stage. "The risk of loneliness is especially high during times of transition in our lives: when we become a student, a parent, a retiree, a widow. At these points there is the risk of us losing our connection with groups we belonged to before the transition," she says.



ABOVE: Contrary to stereotypes, research has found that loneliness is not restricted to old age.

Research published in *Developmental Psychology* surveyed 16,132 people and found that while the causes of loneliness in the elderly is well understood, less is known about what causes it in youngsters

"Research shows that experiencing chronic loneliness is as bad for our health as smoking 15 cigarettes a day, and worse than obesity" lie in the impact loneliness has on our immune system. His research shows that people experiencing chronic loneliness undergo a shift in the molecular programming of their immune cells: instead of being primed to fight viruses, their bodies prepare to fight bacterial infection — the kind that follows a wound or injury. This is the temporary state the body switches into with the fight-or-flight response; the crucial difference is that lonely people get stuck there. Long term, this leads to higher levels of inflammation, which in turn contributes to cancer, heart attacks, Alzheimer's and depression. "Loneliness, oddly enough, is one of the most threatening states we confront," Cole explains.

PRICKLY PEOPLE

But this response to loneliness can also affect our brains, leading us to behave in ways that leave us even more isolated. When these inflammatory signals reach the brain, they change certain aspects of how it functions, including social motivation, making us more defensive, guarded and prickly — not exactly the state of mind best suited to a party mood. Scientists have seen this happen in brain scans: in a study that investigated the hyper-vigilance of lonely people, participants had their brain activity monitored while they were shown images picturing a social threat, such as bullying, and a non-social threat, such as a shark. The researchers found that lonely people responded faster to social threats than to other kinds of dangers, \bullet

It turns out we are even lonely when we're asleep. A recent study into 2,000 young adults by postdoctoral researcher Dr Timothy Matthews at King's College London found that lonelier people reported poorer sleep than non-lonely peers, and were 24 per cent more likely to feel tired and have difficulty concentrating during the day — an association that remained after controlling for mental health problems. The link was almost 70 per cent stronger among those who

RIGHT: Channel 4 documentary, Old People's Home For 4 Year Olds, saw a group of young children and pensioners brought together every day for six weeks to enjoy various activities. The experiment aimed to see whether the wellbeing and mental health of the elderly people would improve because of interaction with the kids. It was such a success that they were all reunited for a Christmas carol concert and snowball fight



"Just as hunger is your body's way of telling you that you need to eat, loneliness is like an alarm bell signalling that you need to reconnect with people" had been exposed to severe forms of violence in their teenage years. "When you feel like you're on your own, the world seems like a more threatening place, which could make it harder to sleep restfully," Matthews says. "This perception of threat in the environment seems to be even stronger for people who've been exposed to an objective threat during their lives, such as being a victim of violence." This also helps us understand why lonely people's immune systems could be primed to fight bacterial infection from a wound, rather than viral infection; they are anticipating being attacked by a predator, with no tribe to defend them.

These findings fit with the evolutionary theory of loneliness. "The theory goes that humans are social creatures and our ancestors would have needed to stick together in groups in order to succeed, so having an instinctive aversion to being isolated would have served an adaptive purpose. Just as hunger is your body's way of telling you that you need to eat, loneliness is like an alarm bell signalling that you need to reconnect with people," explains Matthews. Loneliness is a kind of social hunger — it's a message telling us we need to feed our social selves.

But when it comes to working out how to do that, we still have a long way to go. Much of that is to do with attitudes, says Dr Farhana



How to build village life in the big city

The obvious first step is to start an activity or group that brings people together, but there is one trap that people often fall into, says Dr Farhana Mann, a psychiatrist at University College London. "If you truly want to build a sense of community, you may need to go outside your comfort zone. We tend to associate with people who are similar to us because it's familiar one of the major challenges is bringing in people who are more marginalised," she explains. So if you're looking to set up a local group to create a sense of connection in the area where you live, you also need to think: how can I extend this to people with mental health problems, to people from less represented minorities, to people who are less well off, to children and older people? "That might mean talking to someone who works in a mental health service, contacting existing community groups, and trying to reach those who are most vulnerable," she says.

Mann, a psychiatrist at University College London: "People will go to their GP and tell them about whatever lesion they have, but saying they're lonely is just too embarrassing. We need to give people a sense that it is absolutely legitimate to talk openly to their GP or other health professionals about this, because it's a genuine health issue."

GROUP CHAT

Mann hopes that in the coming months and years, we'll see more social prescribing, where isolated people are referred to a local organisation with expertise in what is going on in the area, so patients can nurture their social relationships. Alongside this, she wants to see more community development where local residents decide what activities they want to engage in, using the skills that members of the communities already have.

"There's no point rushing in to set up groups without talking to the people who make up that community," says Mann. For example, you could end up bringing Beethoven concerts to an area where everybody wants a gardening and a cooking group. And groups that already exist for other purposes — such as diabetes management groups, for example — can be better used to combat social isolation. "Although they are not for loneliness on the label, they may work just as

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Feelings of
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sadness can
be alleviated
with animal
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sessions – who
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• well, because the effect of being in a group of people with a shared experience could have a positive impact," she adds.

There is a lot that we still don't understand about loneliness — particularly when it comes to mental health. "There is certainly evidence for a strong link between depression and loneliness; being lonely makes you more likely to get depressed, and if you are depressed you are more likely to experience loneliness," says Mann. But it is not the same with all mental health problems, and that is where more research is needed. "There is far less evidence about the experience of loneliness for people with other diagnoses like schizophrenia, bipolar disorders, or anxiety disorders. The subtlety of the nature of your mental health problem may influence how you experience isolation, and in turn what you find helpful," she says.

A counterintuitive finding to come out of recent research is that increasing social networks of lonely people is not always the appropriate intervention. Loneliness and social isolation are not the same; many individuals feel lonely even when surrounded by people. "Some people who feel lonely have cognitive biases that make them interpret their relationships as not being satisfying or truly meaningful, so those friends are not really true friends somehow," says Prof Louise Arsenault, a developmental psychologist at King's College London. "I think that people should not focus on how many friends they have, but should focus on one or two relationships only, to make those satisfying and meaningful, so they can really discover the meaning of friendship." \bullet

Moya Sarner is a freelance writer and editor.

Why does loneliness trap some people, while others can come out the other side?

SOCIAL NETWORK

"Having a social network around you can be helpful in practising social skills. Some people have been so isolated they don't remember how to interact, or have lost confidence in their ability to do so," says psychiatrist Dr Farhana Mann.

MENTAL HEALTH

"Depression tends to make people want to withdraw from others, which makes it very difficult to join social groups and develop a sense of belonging," explains psychology lecturer Dr Juliet Wakefield.

INSIGHT

People can have more success beating loneliness if they seek help. "The fact that someone tells me they're lonely allows us to have a conversation that may help; I don't know exactly what will work, but we can talk about it and address it," says Mann.

DEPRIVATION

"Poverty can make loneliness very difficult to escape from, as it means that the person has fewer resources at their disposal, and this can make it difficult to access social groups in the first place," explains Wakefield.

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