

# Being in a choir could help the body fight cancer by boosting the immune system

- Singing reduces stress hormones, such as cortisol, and boosts mood
- Reducing anxiety takes strain off immune system so it can fight disease
- People with depression experienced the greatest mood improvement
- The research suggests singing in a choir could help put cancer patients in the best possible position to receive treatment and stop tumours returning

By [BEN SPENCER FOR THE DAILY MAIL](#)

**PUBLISHED:** 18:46 EST, 4 April 2016 | **UPDATED:** 03:08 EST, 5 April 2016

Singing in a choir boosts the immune system and even helps the body fight cancer, according to research.

Scientists found that just one hour of singing significantly increased levels of the immune proteins that the body uses to battle serious illnesses including cancer.

Experts have long known that singing improves mood.

But the new research, conducted by scientists at Imperial College London, University College London and the Royal College of Music, found that it also has a profound impact on the immune system.

The team found that singing for an hour resulted in significant reductions in stress hormones, such as cortisol, and increases in cytokines, immune proteins that boost the body's ability to fight serious illness.

Doctors suspect that reducing stress and anxiety takes strain off the immune system, allowing it to better use its resources at fighting disease.

The research raises the possibility that singing in a choir could help to put cancer patients in the best possible position to receive treatment and stop tumours from returning afterwards.

The project, which was funded by the Tenovus Cancer Care charity, tested 193 members of five different choirs in Cardiff, Bridgend, Pontypridd, Cwmbran and Swansea.

Of the participants, 55 had cancer.

Choir members gave samples of their saliva before an hour of singing, and then again just after. The samples were analysed to see what changes occurred in levels of hormones and immune proteins.

The study, published in the journal *ECancer Medical Science*, also found that people who were suffering most from depression experienced greatest mood improvement.

Levels of inflammation in the body, which is known to impede the immune system, were also lowered.

Dr Ian Lewis, director of research and policy at Tenovus Cancer Care and co-author of the research, said: *'These are really exciting findings.'*

*'We have been building a body of evidence over the past six years to show that singing in a choir can have a range of social, emotional and psychological benefits, and now we can see it has biological effects too.'*

*'We've long heard anecdotal evidence that singing in a choir makes people feel good, but this is the first time it's been demonstrated that the immune system can be affected by singing. It's really exciting and could enhance the way we support people with cancer in the future.'*

Dr Daisy Fancourt, research associate at the Centre for Performance Science, a partnership between the Royal College of Music and Imperial College London, added: *'Many people affected by cancer can experience psychological difficulties such as stress, anxiety and depression.'*

*Research has demonstrated that these can suppress immune activity, at a time when patients need as much support as they can get from their immune system.'*

*'This research is exciting as it suggests that an activity as simple as singing could reduce some of this stress-induced suppression, helping to improve wellbeing and quality of life among patients and put them in the best position to receive treatment.'*

Diane Raybould, 64, a breast cancer patient who took part in the study, has been singing with the Bridgend Sing with Us choir since 2010.

She said: *'Singing in the choir is about more than just enjoyment, it genuinely makes you feel better.'*

*'The choir leaders play a huge part of course, but so does the support of the other choir members, the inspirational programme and uplifting songs.'*

*'The choir is a family, simple as that. Having cancer and losing someone to cancer can be very isolating. With the choir, you can share experiences openly and that is hugely important.'*

Co-author Rosie Dow, head of Sing with Us project at Tenovus Cancer Care, added: *'This research is so exciting, as it echoes everything all our choir members tell us about how singing has helped them.'*

*'I've seen peoples' lives transformed through singing in our choirs so knowing that singing also makes a biological difference will hopefully help us to reach more people with the message that singing is great for you - mind, body and soul.'*

Read more: <http://www.dailymail.co.uk/health/article-3523661/Choir-singing-help-body-fight-cancer-Just-hour-singing-increase-levels-immune-proteins-body-uses-battle-illnesses.html#ixzz44xuUecxr>