

Science Discovers That Tears Will Kill Germs

So Cry if You Would Save Your Life. for to Do So Releases from the Lacrimal Glands "Lysozyme." Which an Eminent British Physician Has Just Discovered Is Nature's Most Powerful Germicide.



Florence Reed in an Emotional Outburst—Such a Scene Has Saved Countless Lives Because the Tears Releasing a Quantity of "Lysozyme" Have Killed Germs That Might Otherwise Have Entered the System.



Sir Almoh Wright, British Scientist, Whose Perseverance Resulted in the Discovery of "Lysozyme."

THE potency of a tear drop, so long guaranteed by poets alone, has now become a scientific truth. As a result of experiments conducted in the laboratory of Sir Almoh Wright in St. Mary's hospital, London, there has been discovered the existence in human tears of a remarkable substance. The substance he has called lysozyme and one tiny drop of it will destroy millions of bacteria.

Sir Almoh suspected its existence for a long time. After six months of experiments he was able to show its existence conclusively and to demonstrate its power to exterminate bacteria. Thus far this substance has not been isolated. When this is accomplished, scientists believe that the most powerful germ-destroying agency known to man will then be available for use.

The germicidal properties of tear drops were first publicly demonstrated by Dr. Alexander Fleming of Sir Almoh's staff at a recent conversation of the Royal society, London. In the presence of several newspaper men he took a tiny drop of tear in a pipette and gave it as a lethal dose to a good many million bacteria which clouded the liquid in a test tube. Almost immediately the tear dissolved every germ in the tube.

He further explained that this secretion—lysozyme—was present in nearly all the tissues of the body and in most of the secretions and excretions. It was at work all the time, he said, destroying many kinds of bacteria. But in the secretions of the lacrimal or tear glands a very high distillation of this potent juice took place, which made the teardrop a reservoir of great power.

Dr. Fleming has not yet announced what are the constituents of lysozyme, or even if it is capable of being analyzed. Other scientists have ventured the opinion that the substance may be a very strong



Jane Cowl, the Stage's Greatest Weeper, May Have a New Value Placed on Her Tears.



salt concentration and in that way derives its power. According to the accepted definition, a

tear is "a drop of the saline liquid secreted by the lacrimal gland for moistening the surface of the eye and washing away

foreign bodies. Ordinarily the tears are conveyed away by the lacrimal canals to the lacrimal sac, whence they pass into

the inferior meatus (in the nose) and mingle with the mucous secretion, but under the influence of strong emotion or



The Gish Girls—Lillian, the Movies' Most Copious Weeper, Has Produced Enough Tears to Destroy Billions of Germs.

by spasmodic contraction of the muscles of the eye, as in coughing or immoderate laughter, they overflow the cheeks."

But tears not only wash away foreign bodies, they dissolve them, if such bodies are not too large. Almost everybody has had the experience of getting some tiny particle in his eye and having it dissolved there. And from this common experience Dr. Fleming built up an hypothesis which has resulted in the present discovery.

Sneeze and Kill Germs.

Commenting on the London scientists' announcement a New York editorial writer said:

"Nature has many ways of protecting the body. There is salt in tears and salt is one of the greatest protectors. Salt, acid and violent shaking are deadly to germs. When you sneeze you kill germs, just as you would be killed if an elephant stepped on you."

To this writer the London scientists' claims as to the tear drop seem entirely credible. He doesn't see anything unreasonable in Dr. Fleming's hope that ultimately human tears can be utilized to immense advantage in medicine and chemistry.

But before that time comes the problem of getting a world's supply of tears organized will have to be solved.

It is unlikely that an artificial method of producing tears will be discovered. From Dr. Fleming's statement it is gathered that the peculiar processes of the lacrimal gland is necessary to the creating of lysozyme. The only plentiful sources of supply, therefore, are human beings. So now the maiden's tear, long celebrated by lovers and makers of verses, has a commercial value.

The possibilities suggested by this revaluation of tears are many and widespread. Will young women who are particularly adept at the exercise start weeping for a living, just as hundreds of people now sell their blood to hospitals at the rate of \$40 a pint? Will some unscrupulous person kidnap Jane Cowl or Florence Reed or the Gish girls, force them to cry continuously and then bottle up the tears for sale? Will mothers stand around waiting for their babies to start weeping in order to catch the golden drops as they fall?

The suggestions are fanciful, to be sure, but are well within the limits of the possible.

The chances are that a class of professional weepers will spring up from whom medical men and chemists will be able to

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