

MEDICINE

Germ Causing Dandruff Found By St. Louis Scientists

A GERM that can produce dandruff and an allied scaling condition of the body "under favorable conditions" has been found by Drs. Morris Moore and Roy L. Kile of the Barnard Free Skin and Cancer Hospital, St. Louis.

The germ is a fungus with the scientific name of *Pityrosporum ovalis*. Under the popular name of "bottle bacillus," it has been accused by many dermatologists of causing dandruff, but this could never be proved because the organism could not be grown outside the body.

The St. Louis investigators have suc-

ceeded in growing it by using suitable material. With organisms they grew outside the body they were able to produce dandruff in human volunteers as well as in rabbits and guinea pigs. More of the human guinea pigs developed dandruff when the organism was put into scratches on their skin and a lipid salve was rubbed in than by any other method of inoculation. From this and other evidence, (*Science*, March 15), the investigators concluded that the fungus, *Pityrosporum ovalis*, may produce dandruff and scaling under favorable conditions.

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HOW MUCH LIGHT?

Illuminating engineers recommend the use of a 100-watt lamp in this reading lamp, with light falling directly down onto the page. Prof. Tinker of Minnesota questions that so much light is necessary or desirable for ordinary reading.

OPTICS

Very Powerful Lights Not Needed for Ordinary Reading

YOU NEED not buy electric light bulbs of extremely high wattage in the fear that use of less powerful lights will ruin the eyesight of members of your household, it appears from a survey of research studies by Dr. Miles A. Tinker, of the University of Minnesota. (*American Journal of Optometry*, Feb.)

Reading by lights of lesser intensity does not cause eyestrain unless the eyes are abnormal or the print illegible, Dr. Tinker declares. In fact, the contrary may be true. Lights of the extremely high intensities often recommended as healthful and necessary may cause discomfort by producing glare.

A minimum of from 25 to several hundred foot-candles has been recommended for reading in the home. The foot-candle is a unit of illumination arrived at by dividing the candle power of the light by the square of its distance from the illuminated surface.

For example, suppose this article is read by the light of a bridge or reading lamp shining directly down onto your paper from a distance of about three feet. The bulb, say, is about 60 candle power (60 watts). Then the illumination on the paper would amount

to at least 6.6 foot-candles. Experts estimate, however, that the concentration of light caused by the lamp shade might magnify this figure about four times, but this still might leave the illumination below the formerly prescribed minimum of 25 foot candles.

"There is no valid evidence to support the suggestions that the normal eye needs from 25 to several hundred foot-candles of artificial illumination for easy and efficient reading of legible print," Dr. Tinker said.

"For all but abnormal eyes and the reading of illegible print, 10 to 15 foot candles furnish an ample margin of safety in brightness of illumination," he insisted.

This would mean substituting a 25 candle power bulb for the 60 in your close reading lamp with no harm to the eyes, or the 60 watt lamp could be placed at a much greater distance.

Diffusion of light has a great deal to do with the intensity you should use, Dr. Tinker pointed out. With well diffused indirect lighting, the intensity may be increased to any desired level without harm to the eyes, but with direct or indirect systems where the light is not well diffused, the higher intensities re-

sult in increased glare and should be avoided, he said.

"If the print paper is glazed or shiny, glare becomes more annoying as the intensity of light which is not well diffused is increased. The paper in many magazines and books has varying degrees of gloss, and the light in the majority of living rooms and offices is not well diffused. Consequently, increase of light intensity usually means increased glare."

"It is highly probable that, with the best diffusion available in the ordinary home and office, the light intensity should not be higher than about 15 foot-candles."

Here are Dr. Tinker's recommendations for reading legible print with the normal eye.

1. For direct lighting with poor distribution, 3 to 5 foot-candles.
2. For combination of direct and semi-indirect illumination frequently found in homes, 5 to 10 foot-candles.
3. For the better degrees of light distribution found in some homes and offices, 10 to 15 foot-candles.

For abnormal eyes, or for difficult eye tasks such as the discrimination of fine details, the intensities should be greatly increased. The diffusion should be adequate, however, Dr. Tinker warns, or eyestrain cannot be avoided.

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