

Closing toilet seat lids may not stop spread of germs

Many people believe / that putting the toilet-seat lid down / helps to **prevent** the **spread** of dangerous germs and viruses.// A recent study pretty much **dispels** this **supposition**.// A team of **microbiologists** from the University of Arizona / conducted research on the **aerial** activity of viral **particles** / after a toilet is flushed.// The scientists determined / that there is little difference in the spread of germs, / **regardless of** whether the lid is up or down.// Microbiologist Dr. Charles Gerba has been studying **lavatory pathogens** / for nearly five decades.// He said: "All that air when you flush goes somewhere, / and it carries the viruses / that are in the toilet bowl out of it."// He said / a flush forces bacteria out from under the lid / and **contaminates** nearby areas.//

The researchers tested the spread of a test virus / in two bathrooms after a flush.// The virus was one not able to infect humans.// They flushed one bowl with the lid up, / and another with the lid down.// After a minute, they used a sponge to **swab** the surfaces in the toilet.// They **concluded** that there were no significant **statistical** differences / in the quantities of the virus in the two bathrooms.// They added / that the results **demonstrate** / that closing the toilet lid **prior** to flushing does not **mitigate** / the risk of contaminating bathroom surfaces, / and that **disinfection** of all restroom surfaces / may be necessary after flushing or after toilet-brush use / to cut the spread of germs.// They also said / it was important to disinfect the water in the bowl.//

多くの人が信じている / トイレのシートの蓋を閉めることは / 危険な菌やウイルスが広がることを防ぐのに役立つと// 最近の研究がこの仮定を大きく打ち消している// アリゾナ大学の微生物学者のチームが / ウィルス粒子の空中での動きの研究を行った / トイレを流した後の// 科学者たちは判断した / 菌の広がりには少しの違いしか無いということ / 蓋が閉まっているか開いているかどうかには関係なく// 微生物学者のチャールズ・ガーバ博士はトイレの病原菌について研究してきた / ほぼ50年間// 彼は「トイレを流した時の空気はどこかへ行く / そしてそれは便器の中にあつたウイルスを外へ運ぶ」と言った// 彼は言った / トイレを流すことは細菌を蓋の下から外へ押し出し / その近くの場所を汚染すると//

研究者たちはテスト用のウイルスの広がりを調べた / 流した後の2つのトイレで// そのウイルスは人には感染しないタイプだ// 研究者たちは、一方は蓋を開けて流し / もう一方は閉じて流した// 1分後、彼らはスポンジを使ってトイレの表面を拭き取った// 彼らは大きな統計上の違いはないと結論を出した / 2つのトイレの中のウイルスの量において// 彼らはつけ加えた / 「その結果が立証している / 流す前に蓋を閉めることでは軽減しない / トイレの表面を汚染するリスクを / そしてトイレの表面をすべて消毒することは / 流した後や、トイレブラシを使用した後に必要かもしれない / ばい菌の拡散を防ぐために// 彼らはまた言った / 便器の中の水を消毒することも重要だと//

《Vocabulary and Phrases》

prevent	防ぐ	pathogen	病原体
spread	広がり	contaminate	汚染する
dispel	一掃する	swab	拭き取る
supposition	仮定、想定	conclude	結論を出す
microbiologist	細菌学者	statistical	統計上の
aerial	空中の	demonstrate	立証する
particle	粒子	prior	前の
regardless (of)	~に関わらず	mitigate	軽減する
lavatory	化粧室、トイレ	disinfection	消毒

TIPS 生物の歴史

「この世には肉眼には見えない生物らしきものがある」としたのが、オランダの科学者レーウェンフックです。これがなんと17世紀後半のこと。また、『虫などの小さな生物は空気から生まれる』と考えられていた。フランスの科学者パスツールによって、この考え方がくつがえされたのが、なんと1862年のこと。現在では当たり前のことですが、わずか200年たらずで、衛生・医療は大きく発展したのです。

Many people _____ that putting the toilet-seat lid down helps to prevent the spread of _____ and viruses. A recent study pretty much _____ this supposition. A team of microbiologists from the _____ conducted research on the aerial activity of viral particles after a _____ is flushed. The scientists _____ that there is little difference in the spread of germs, regardless of whether the lid is _____. Microbiologist Dr Charles Gerba has been studying _____ pathogens for nearly five decades. He said: " _____ when you flush goes somewhere, and it carries _____ that are in the toilet bowl out of it." He said a flush forces bacteria out from under the lid and _____ nearby areas.

The _____ tested the spread of a test virus in two bathrooms after a flush. The virus was one not able to _____. They flushed one bowl with the lid up, and another with the _____. After a minute, they used a _____ to swab the surfaces in the toilet. They concluded that there were _____ significant statistical differences in the _____ of the virus in the two bathrooms. They added that the results "demonstrate that closing the toilet lid prior to flushing does not mitigate the risk of _____ bathroom surfaces, and that _____ of all restroom surfaces may be necessary after flushing or after toilet-brush use" to cut the spread of germs. They also said it was important to disinfect the water in the bowl.

Question 1: Does the toilet-seat prevent germ spread when flushing?

Question 2: How did the researchers test the hypothesis?

Question 3: What is recommended to prevent contamination by toilet?

Summarize:

Q&A Sample Answers

Q1: No.

Q2: By flushing two toilets, one closed, one open; then swabbing the rooms.

Q3: Disinfect all washroom surfaces, and the water in the toilet. (Disinfect everything)

Sample Summary:

Many people believe that closing the toilet-seat lid when flushing prevents the spread of germs. It doesn't. The air comes out of the toilet bowl, lid or no lid, contaminating everything. This was tested with two toilets. It is recommended to disinfect the entire toilet room to avoid contamination.