How to Prevent Respiratory Infections

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We spend considerable effort trying to keep respiratory viruses from entering our bodies. But what about the pathogens that have already entered the nose, mouth, and throat?

That question led me to design a simple hygiene practice intended to reduce the pathogen load in those areas before an infection has an opportunity to become firmly established. I call it TANC – Throat-And-Nose Cleaning. The entire process takes less than one minute.

Why TANC Makes Sense

Many respiratory viruses – including influenza, RSV, rhinoviruses, coronaviruses, and SARS-CoV-2 – initially encounter and begin replicating in the upper respiratory tract. That suggests a straightforward possibility: After exposure, can we reduce the infectious load in the places where many respiratory infections begin?

Laboratory research provides support for the concept. Penn State researchers found in the lab that Listerine® Original Antiseptic Mouthwash inactivated more than 99.9% of a human coronavirus within 30 seconds. That does not prove that rinsing and gargling would prevent respiratory illness in people; but it surely provides a plausible biological rationale for testing the idea.

The same research found that a 1% baby-shampoo solution also strongly inactivated the virus in the laboratory, but because even a highly diluted detergent could potentially adversely affect delicate nasal tissue, I would not recommend it.

TANC in Less Than a Minute

The protocol is deliberately simple: Rinse and gargle for about 30 seconds with an antiseptic mouthwash such as Listerine® Original. Then blow your nose and thoroughly wipe the accessible inside surfaces of each nostril with a tissue. Of course, wash your hands too. That's it.

No elaborate nasal irrigation. No mixing solutions. No equipment to clean. Rinse, gargle, blow, and wipe – in less than a minute.

Is blowing and wiping the nose proven to prevent infection? No. But mechanically removing mucus, inhaled particles, and potentially most of the organisms they contain is simple, safe, and virtually cost-free.

Our Six-Year Experiment

Before the pandemic started in 2020, my wife and I each caught two or three colds every year. In early 2020, we began practicing what I eventually named TANC, to possibly prevent Covid.

Since then, neither of us has had a single recognized cold, influenza infection, COVID-19 infection, RSV infection, or other acute respiratory illness. More than six years. Two people. Zero airborne illnesses.

That is not a clinical trial. It is an N of just 2, without a control group. But zero is still an interesting number. Our experience does not prove that TANC works. It does, however, make us sufficiently convinced to continue doing it, and it raises a question that deserves a rigorous answer.

Why Not Test It?

TANC requires no prescription, no new drug, no device, and essentially no expense beyond mouthwash and a tissue. It takes less than a minute and can easily become part of a daily routine or be used after significant potential exposure.

A randomized clinical trial could answer the central question: Do people who regularly practice TANC develop fewer respiratory infections than people who do not? Perhaps a remarkably simple preventive measure has been hiding in plain sight.

TANC would not replace vaccination, ventilation, appropriate masking, or other established preventive measures. It is best viewed as a possible additional layer of protection.

The scientific proposition is simple: Many respiratory infections begin in the upper airway; mouthwash can rapidly inactivate some respiratory viruses in laboratory studies; and physically cleaning the nose can remove material deposited there.

The practical proposition is even simpler: If something takes less than a minute, costs almost nothing, carries little downside, and might reduce your chances of getting sick, shouldn't we find out whether it works? And even without that clinical-trial proof, why wouldn’t it make sense to start doing TANC whenever you are potentially exposed to a respiratory disease?

Key References

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