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Not-So-Fun Facts From the Health Building

Cleaning Carpets and IAQ With Hot-Water Extraction

'Chatter': Your Guide to Thrivina Under Pressure

One-Pan Chicken Tacos

3 Insane Events That Happened at Augusta National Golf Club

# 3 INSANE EVENTS THAT HAPPENED AT

**AUGUSTA NATIONAL GOLF CLUB** 

Augusta National Golf Club in Augusta, Georgia, is one of the most famous golf courses in the world. The golf club was constructed back in 1933 and has enthralled golfers of every skill level. Augusta is mostly known for the Masters Tournament, one of the four major championships on the PGA Tour.

In its nearly 90-year history, Augusta National Golf Club has seen some crazy events. From hostage situations to near-death experiences, there's no shortage of unbelievable stories that have taken place on the course. Below you'll find three of the most bizarre events that have occurred at this golf club.

#### Ronald Reagan's Bizarre 1983 Round

Many presidents throughout our country's history have enjoyed the game of golf, and Ronald Reagan was no exception. While Reagan was in the middle of a round at Augusta, a man named Charles Harris rammed his pickup truck through a locked gate, stormed into the pro shop, took five hostages, and demanded to speak with the president. Reagan left the course after Harris

refused to speak to him over the phone, then the police handled the situation from there. Reagan returned the next day to play an uninterrupted round.

#### The Years Without the Masters

During World War II, golf was one of the last things people thought about. After seeing the bulk of their members sent overseas to fight in the war, the owners of the course came up with an alternative way to make money. They decided to allow cattle and turkeys to roam the course before they were ready for market. It took years for the foliage to return to playing shape.

#### **Death and Return**

At the 2018 Masters, a man named Johnny Pruitt got to live his dream by attending the championship as a spectator. He never made it to his seat though as an irregular heartbeat stopped his heart. Pruitt was taken from the course, and his heart

was restarted with a defibrillator before he went into a coma. He awoke from the coma a week later, and Augusta invited him back to attend the 2019 Masters.



## 2 IAQ FACTS YOU PROBABLY DON'T WANT TO KNOW

### The Inside Scoop From the Healthy Building Conference

Well folks, it happened: After two years of rescheduling and postponement, I finally got to attend the International Society of Indoor Air Quality and Climate (ISIAQ) Healthy Building conference!

As you know from past newsletters, this conference is one of the highlights of my year. It's my opportunity to learn the latest indoor air quality research, meet other experts in the field, network with peers, and discover cutting-edge technologies I can use to improve your buildings and that's exactly what I did.

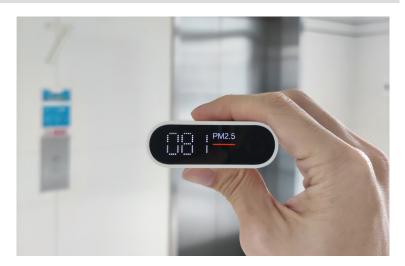
This year's conference was virtual, but I still learned a lot. I took 22 pages of handwritten notes on a legal pad while staring at my computer screen. I still have more programs in the archive to watch, too, but I already have two big, nasty takeaways I need to share with you.

1. Particles are a bigger problem than we thought — and they're **in your kitchen.** Some of the most interesting presentations from this year's conference focused on particles. I've written several articles about dust and particles for you in this newsletter already, but this new research really opened my eyes to what a critical issue PM 2.5 particles are for indoor air quality!

PM 2.5 articles are very small, less than 2.5 microns in width, but they can cause serious health problems when inhaled including eye irritation, sneezing, and upper respiratory issues. The presentations I watched ranged from research into the impact of PM 2.5s on cavedwelling families in China to the effect they're having on low-income Africans. Both of these populations cook indoors where they live and end up breathing higher levels of particulate matter that has a terrible effect on their health.

We're not safe from this in developed countries, either! Other presentations focused on the impact of these particles in schools using natural gas for heat. I couldn't believe the level of exposure they cited. After the conference, I pulled out my particle counter and ran it while Kaye and I cooked dinner on our gas stove. The PM 2.5 count rose to sky-high levels, even with the high-efficiency filters we use in our home!

With this new information, I'm being extra diligent about testing for particles in the commercial buildings I inspect. Not long ago, I ran just such a test when I was called in to help with a mold problem and found particle levels more than three times the recommended level. After investigating further, I discovered that an outside air intake was



hooked up incorrectly and was pulling dirty air from the attic into the building's second floor. Fortunately, we were able to fix the problem before the tenants developed health issues.

2. Even if you think your building is deep-cleaned, it probably isn't. This came up at the conference when presenters shared research into the cleaning and custodial practices in schools and commercial buildings. When the researchers took micrographs (images showing microscopic particles), they found dirt, debris, and even mold lodged in the carpet of supposedly clean buildings! Even vacuuming with HEPA filters wasn't enough. The amount of nastiness was staggering and eye-opening. Turn to Pg. 2 for more information on the research and how to clean properly.

As informative as the ISIAQ conference was, it wasn't nearly as fun to attend online as it would have been in-person in Honolulu. Still, I managed to connect with a few peers through Facebook during the conference, including my friend Barbara Spark, a retired IAQ expert from the EPA. (You may remember her as the woman who made a public radio story on IAQ that was so excellent I used it as sales training.)

I'm looking forward to doing more of that and learning more not-so-fun facts for you at future conferences.



# **CLEANING CARPETS AND IAQ WITH HOT-WATER EXTRACTION**

Over the years we have been doing indoor air quality (IAQ) consulting, we have run into many weird and unusual situations. But sometimes the problems we encounter have simple causes and simple solutions.

We have responded to complaints about odors, noise, airborne irritants, and even coworkers (psychosocial). But the most common complaint involves people reacting to irritant dust levels. Now, dust is a general term that may involve particles, fibers, dirt, or even mold. But we don't know what the issue is when we arrive.

We routinely sample airborne particles on every IAQ survey we perform. And the insights that this specialized air sampling provides help us identify the source of many of the complaints we hear.

We recently surveyed a high-end buildout completed in a Class A building in response to general IAQ complaints. We immediately noticed high particle levels in the complaint area during our review. Since the offices weren't occupied during our visit, we didn't have the complainants to interview. Instead, the receptionist and staff supervisor were there. After gathering our data and finding high particle counts in three individual offices and a neighboring conference room, we talked with the supervisor. He mentioned that the complaints started shortly after some minor remodeling was done. A more detailed discussion indicated that the remodeling contractor didn't use plastic to isolate the construction area during the work. This means that the particles and dust from construction activities (cutting, sanding, etc.) settled in the carpeting. Then, every time someone walked into their office or a group met in the conference room, dust would become airborne and irritate the occupants. The complaints included sneezing and coughing as well as eye, nose, and throat irritation.

#### The Research

We attended a recent presentation at the 2022 Healthy Building Conference discussing this issue. It involved researchers who visited a Class A building that received regular and consistent custodial services. Nightly dusting and vacuuming were the norms for the three floors studied. And the training provided to the custodial staff was also reviewed. That training was equal to the standard of care provided for Class A office buildings across the United States.

The researchers looked at particles, mold, and bacteria in the airborne tests performed. The

analytical results showed occasional Penicillium and Aspergillus molds and gram-negative bacteria spikes. They also saw increased particulate matter when the carpeting was disturbed, thus demonstrating that the indoor environment is an ecosystem with normal fluctuations. Yes, even in a building receiving outstanding custodial care.

The researchers noted that "with proper attention to source management through routine cleaning and immediate attention to unexpected occurrences, those fluctuations can be controlled." Their research recommended establishing the following indoor environmental management guidelines:

- Clean for health first, appearance second
- Maximize the extraction of pollutants
- Minimize chemical, particle, and moisture residues
- Properly dispose of cleaning waste
- Provide for safety, including minimizing human exposure to pollutants

#### The Recommendations

Many of our clients know that we recommend using hot-water extraction methods to clean carpeted surfaces. The researchers agreed with our recommendations and suggested using high-detergent cleaners with low VOCs (volatile organic compounds). Next, they recommended no bleach-based products and cleansers with a low solvent content. Finally, they directed that "no or minimal fragranced products" be used in cleaning and treating the carpet materials.

So, how clean will carpeting be after using hot-water extraction methods? Surprisingly, the researchers also collected tape-lift samples from carpets both before and after the hotwater extraction. Remember that the before cleaning samples were carpeting that received regular custodial attention and HEPA (high efficient particle air) filter vacuuming. Those samples were collected and sent to a laboratory for scanning electron microscopic analysis. The photos taken of the carpet before and after the cleaning (top, right) really tell the story.

As the "before" photos show, the carpet fibers are twisted and matted and show many whitecolored areas. The white-colored reflection is the buildup of dirt and mold on the surface of individual carpet fibers. Routine vacuuming won't have much impact on contaminants like





this. Instead, the researchers dictated cleaning of the carpet using hot-water extraction with active-air drying, feeling that this would be the only way to remove the buildup and hopefully straighten the carpet fibers shown in the before photos. The cleaning results (shown in the after photos) include straightening carpet fibers and removing the buildup of dirt, dust, debris, and mold from individual fibers.

Finally, let me remind you that once the carpet is cleaned using hot-water extraction, the most effective way to dry it is with active air movement using floor fans in a conditioned environment. Although many carpet cleaning and custodial firms want to rely on the building's HVAC systems to dry the carpet, we disagree! Using the HVAC system's air supply exclusively can leave the carpet surfaces wet for too long, which can encourage mold to begin growing. And growing microscopic colonies of mold on your carpet can create an entirely different IAQ concern that no one wants to encounter.

We have learned that the initial response to many IAQ complaints involves cleaning carpeting to remove many years of dust, dirt, and debris. Cleaning carpeting using the proper methods reduces the burden on the occupant's health and has a psychological effect as well. And that alone buys you weeks or even months of cleaner indoor air and happier building occupants.

If you'd like to know if airborne particles are creating IAQ problems in your building, give us a call. We can compare the complaint areas to non-complaint areas and let you know what the data says.

### TAKE YOUR INTERNAL PEP TALKS UP A NOTCH

WITH TIPS FROM 'CHATTER'

You probably know about the benefits of positive self-talk, but have you mastered it? If not — or if you've never heard that phrase — "Chatter: The Voice in Our Head, Why It Matters, and How to Harness It" by Ethan Kross may be the most important book you read in 2022.

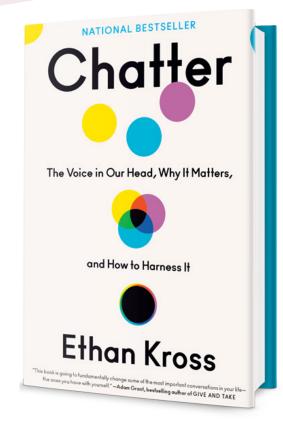
Positive self-talk is something most of us engage in daily. It's the "you can do this" nudge you give yourself to combat dark thoughts like "I don't know what I'm doing" and "no one will take me seriously" before a big presentation. But few resources give you precise strategies for how to engage in positive self-talk effectively so you can make those negative impulses go away.

"Chatter" is an exception to the rule, perhaps because it was written by an actual psychologist! Leaning heavily on scientific research and engaging case studies, Kross offers concrete tips for reducing negative thoughts (what he calls "chatter") and giving your self-confidence a boost. One of his biggest tips, which drives a big chunk of the

book, is the importance of creating "mental distance" during your internal pep talks.

Mental distance is exactly what it sounds like — stepping back mentally from your worries and problems so you can gain a new perspective. Kross goes over several ways to do this, including trying to "look back" at your current situation from one, five, or 10 years later; comparing this hurdle to tougher ones in your life; and shifting your internal monologue to third person so you can try talking to yourself as if you were your own friend. With these strategies, we can transform our thoughts, rather than avoid them.

Of course, those suggestions just scratch the surface of what's offered in the book. Kross also goes over how to help your friends, colleagues, and employees eliminate chatter, and how mastering your inner voice will help you thrive under pressure. The magazine Inc. named "Chatter" one of the "4 Business Books That Will Accelerate Your Success In 2022" — don't miss it.



## TAKE A BREAK!

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### **ONE-PAN CHICKEN TACOS**

Inspired by TasteOfHome.com

#### **INGREDIENTS**

- 1 lb chicken breasts, sliced into 1-inch pieces
- 2 tbsp garlic powder
- 2 tbsp cumin
- 2 tbsp chipotle powder

- Canola oil (for frying)
- Corn tortillas
- Grated cheddar cheese
- Pico de gallo and guacamole salsa (to taste)

#### **DIRECTIONS**

- 1. In a mixing bowl, combine the chicken pieces, garlic powder, cumin, and chipotle powder. Mix until the chicken is coated.
- 2. In a frying pan, heat the oil. When the oil is hot, add the chicken mixture. Cook on medium heat for 5-8 minutes.
- 3. Remove the chicken from the pan, and add the corn tortillas (avoid overlapping) so they soak up the juices. Flip the tortillas and repeat. Then, add chicken and grated cheddar to each tortilla and fold it over the filling — in the pan.
- Cook the tacos for 3 minutes per side until the tortillas are crispy and the cheese
- 5. Top with pico and guacamole salsa, and serve!