

Presents...

THE DIRTY DOZEN

The 12 Scariest Places in the Dental Office

Do you ever wonder how clean your dental office really is? What is lurking in your Dental Practice that could make your office unsafe? We went on a quest to answer these questions and clean up the problem.

This report will reveal the shocking truth about the cleanliness of dental offices. The bad news, you have a problem. The good news, there is an easy, definite solution!

We looked to microbiology to find the answers, which include microorganisms and adenosine triphosphate (ATP). The presence of microbes (bacteria, viruses, and fungi) can facilitate infection transmission. In simplest terms, ATP is a food source for microbes. Microbial levels are measured in Colony Forming Units (CFU). ATP is measured in Reactive Light Units (RLU). Using specialized equipment, we started testing different surfaces in the dental offices and wound up with some **really sobering data**.

Our findings shed light on <u>12 common areas with consistently high microbial and ATP counts.</u> We know Dentists must maintain clean, sanitary surfaces to prevent cross-contamination and the spread of infection. We are sharing this report with you, so you can make decisions to improve the infection control scores in your dental office.

We are determined to help Dentists turn these numbers around. We developed a solution that reduces demands of your staff's time and energy (less wiping), works continuously 24/7 (your current disinfectant does not do this), only has to be reapplied once every 90 days (really), actually makes the office safe for your staff and patients (peace of mind), provides ongoing data (proof of efficacy), is EPA and FDA-approved, and might even save you money.



Scroll down to find out what could be lurking in your practice...and how to turn your numbers around.

#12 The Operatory Mouse The mouse is surprisingly the cleanest of The Dirty Dozen.

- ATP Before spray: 265 RLU
- Microbial Before spray: 30 CFU
- ATP After spray: 108 RLU
- Microbial After spray: 0 CFU



#11 The Operatory Cabinet

- ATP Before spray: 312 RLU
- Microbial Before spray: 6 CFU
- ATP After spray: 42 RLU
- Microbial After spray: 0 CFU

#10 The Operatory Keyboard

- ATP Before spray: 318 RLU
- Microbial Before spray: 17 CFU
- ATP After spray: 85 RLU
- Microbial After spray: 0 CFU





#9 The Patient Armrest

- ATP Before spray: 682 RLU
- Microbial Before spray: 90 CFU
- ATP After spray: 179 RLU
- Microbial After spray: 0 CFU

#8 The Reception Counter

- ATP Before spray: 722 RLU
- Microbial Before spray: 45 CFU
- ATP After spray: 284 RLU
- Microbial After spray: 0 CFU

It's probably not a surprise that the reception counter showed up on The Dirty Dozen list. Lots of hands and probably not a lot of attention to cleaning is why this area is a feeding ground for microbial contamination.

#7 The Clinical Sink Handle

This is why so many of us use paper towels after we wash our hands to turn off the water!

- ATP Before spray: 726 RLU
- Microbial Before spray: 11 CFU
- ATP After spray: 104 RLU
- Microbial After spray: 0 CFU





#6 The Office Instrument Handles

It's scary that the instrument handles are even on this list. Unfortunately they are, but there are solutions to keep these clean for each patient.

ATP Before spray: 897 RLU

Microbial Before spray: 1244 CFU

ATP After spray: 208 RLU

Microbial After spray: 0 CFU

#5 The Exam Light

Our results consistently found loads of ATP on the exam light, suggesting a little more love and disinfecting attention must be paid to this important tool in the Dental Office.

ATP Before spray: 950 RLU

Microbial Before spray: 0 CFU

ATP After spray: 56 RLU

Microbial After spray: 0 CFU



#4The Reception Phone

#3The Reception Door Knob

ATP Before spray: 1270 RLU Microbial Before spray: 56 CFU

ATP After spray: 845 RLU Microbial After spray: 0 CFU

Not surprising that the reception door knob is a breeding ground for microbial activity and a collector of ATP. With multiple users, and a fast-paced work environment, it's no wonder it gets missed in the cleaning procedure.

ATP Before spray: 1474 RLU

Microbial Before spray: 4 CFU

ATP After spray: 292 RLU

Microbial After spray: 0 CFU

#2 The Restroom Door Knob

ATP Before spray: 1553 RLU Microbial Before spray: 18 CFU

ATP After spray: 227 RLU Microbial After spray: 0 CFU



#1 The Dentist Office Armrest

ATP Before spray: 1582 RLU

Microbial Before spray: 135 CFU

ATP After spray: 217 RLU

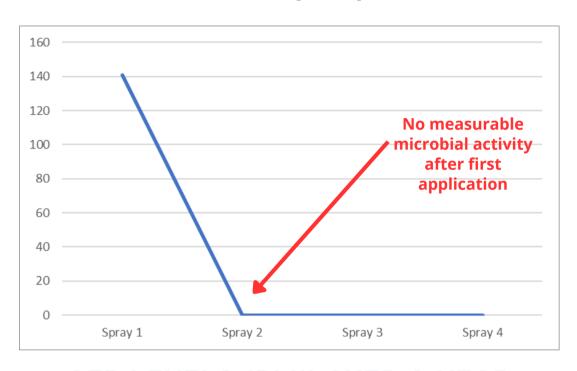
Microbial After spray: 0 CFU



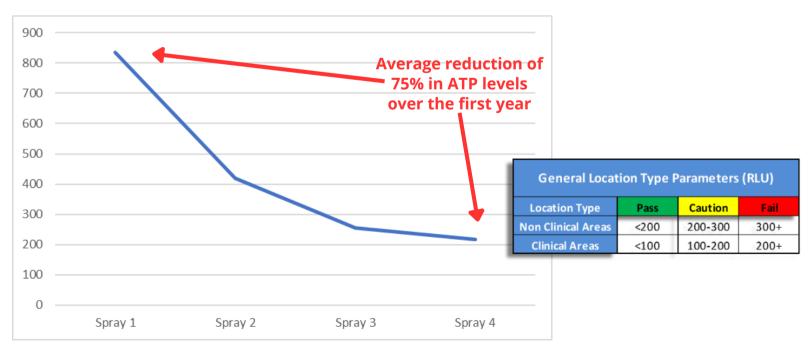


1 YEAR TIME LAPSE

MICROBIAL LEVELS (CFU) OVER A YEAR



ATP LEVELS (RLU) OVER A YEAR





FAQS

Why didn't ATP Levels go to 0?

ATP or Adenosine triphosphate is a compound that is present in all living cells and organic matter and is measured by RLU's (Relative Light Units). When a cell dies it leaves behind ATP. ATP is also the food source for living microorganisms. So while we can kill virtually all microbial activity, we can't eliminate the remnants of all dead cells throughout a practice. Since ATP is the food source for microorganisms and we can't remove all of it, the best we can do is try to minimize the ATP levels. Based on multiple studies and our data, the ability for microorganisms to live when ATP is sufficiently low is greatly reduced. Here are the levels we measure all of our ATP tests against:

General Location Type Parameters (RLU)					
Location Type Pass Caution Fai					
Non Clinical Areas	<200	200-300	300+		
Clinical Areas	<100	100-200	200+		

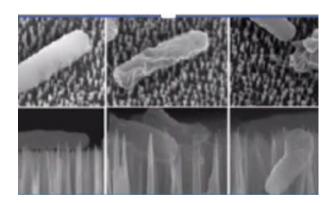
Why did Microbial Levels go to 0?

Unlike ATP which is a molecular building block, microbes are living organisms. We measure microbial activity with CFU's (Colony Forming Units). Bacteria grow in colonies, and we can measure them through our swabbing procedures. With our MediClean and Shield process we can kill the living colonies and then put down a protective polymer coating that will prevent colonies from forming on the particular surface again.

Unlike ATP where there is an acceptable limit to get the levels below, microbial tests are truly a pass fail. If you have any CFU's you fail, because that means you have colonies of bacteria on your surfaces. That is why if we detect any CFU's after completing our service we will come back and respray your facility for no charge (MCS Garuntee).

What makes our product different?

Many products on the market are loaded with alcohol and hydrogen peroxide. While these ingredients can kill germs and microbes quickly, they do it by poisoning the microbes. These toxic effects also have a harsh reaction with your skin and office materials. They can eat away and damage skin, fabrics and other surfaces faster than they were intended to. Our product doesn't contain any harsh chemicals and is non-toxic, environmentally friendly, odorless and surface compatible. Our product electromechanically kills microbes by its chemical structure. Instead of poisoning the microbes to death it impales them on microscopic, little spikes. This allows our product to be sprayed on more surfaces, without damaging them, and won't interfere with any of your equipment's certifications.





DIVING DEEPER

OUR STORY

How did we Find the Dirty Dozen?

Over the course of two years, we did countless tests to make sure we could get accurate reliable results. Our R&D team tested every aspect of our process from different surface types to the transportation of swabs, to the viability of different cooler systems. Through this process, we came up with the process we now call the MediClean & Shield process.

After we completed all of our studies we moved on to field testing. We had a group of like-minded, industry-leading doctors who allowed us to use their practices as demo locations. Over the course of many more months, we tested how our process held up to real-world use. We tested the invasiveness, durability, and practicality of our process. This allowed us to hone our process even further to make it more customer and practice-friendly.





We are now proud to say we have done dozens of office sprays, and thousands of ATP, microbial, and water line tests, and have helped many dentists bring a level of cleanliness and peace of mind that has never been seen before. As you can see from the results up above, we see an average decline in ATP of 75% and a <u>sustained</u> decline in microbial activity of 100% (zero CFU).

We know there will be other contagious pathogens that will crop up in the future and new challenges that arise in keeping facilities clean, but we are confident that our research and process will be the basis for quick response times, and continual research to stay one step ahead of dirt and bacteria.

If you are concerned about your office's cleanliness and your patient's health give us a call today.



CLEAN & PROTECT THE DIRTY DOZEN

360° OF PROTECTION 24/7



Electrostatic Spraying

Electrostatic spraying allows us to get underneath and behind places you wouldn't be able to get with a standard airless sprayer. This allows the cleaning and protecting sprays to wrap around the Dirty Dozen. The solution is safer than most disinfectant wipes and eliminates concerns of inadequate wiping! And it kills germs for 90 days on all covered surfaces.



ATP & Microbial Testing

We test for microbial activity throughout a facility, as well as ATP (food source for microorganisms) to make sure the possibility for microbial growth is eliminated. The testing gives you peace of mind as you watch those numbers go down! Evidence based technology supports your new infection control program. "You can't manage what you don't measure."



Polymer Coating

Our proprietary spraying solution is actually a disinfectant and co-polymer, so it adheres to surfaces and works constantly. Common disinfectants used by dental offices do not utilize this technology, so the need to "spray-wipe-spray" or "wipe-wipe" is constant (the hard way). When contaminants contact a surface protected with our disinfectant/copolymer they die on contact, as our coating is electrically charged to attract and continuously kill microbes until your next quarterly reapplication.











OUR PROCESS

GROUND BREAKING 6 STEP PROCESS

Consultation

MCS Infection Prevention Specialist(s) will meet you at your space to ensure we're able to meet your needs. They will perform a thorough tour of your space to document all areas of concern and create a customized plan. A proposal will be presented and reviewed. (One size does not fit all)

Pre-Test & Measurement

MCS Infection Prevention Specialist(s) will conduct multiple tests in key locations to determine the amount of active organic matter through industry-standard ATP and/or microbial testing procedures. These results will be documented and recorded to provide a baseline for comparison. (Pre-Cleaning State)

Cleaning & Protection

Step-1 - A single quick and easy application will eliminate up to 99.999% of germs, bacteria, viruses, fungi, mold, and other harmful microorganisms or "microbes" on hard, nonporous surfaces and 99.9% of same on fabrics and carpets, while also eliminating odors and allergens.

Step-2 - Once dried, the spray-on treatment permanently bonds to surfaces, both porous and non-porous, and will last for months. The dried solution resembles upturned spikes that puncture microbes like a bed of nails (see bottom pic on previous page).

Post-Test & Measurement

MCS Infection Prevention Specialist(s) will conduct multiple tests in key locations to determine the amount of active organic matter through industry-standard ATP and/or microbial testing procedures. These results will be documented, recorded to verify the results of the cleaning process. (Post-Cleaning State)

Certification

An MCS-certified decal will be placed in a visible location to show your patients and staff that you are committed to their protection. (MCS Certified)

Maintenance & Management

MCS follows FDA guidelines and recommends testing, cleaning and spraying every 90 days. MCS will spot check and test your location in-between scheduled cleaning cycles. If the space is outside of expected norms, we'll clean and shield your space for no additional charge. (MCS commitment)









THE DIRTY DOZEN - SAMPLE REPORT

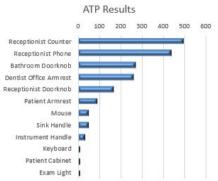


2961 McDermott Road #200 Plano, TX 75025 Phone: 469-778-7550 www.mcsteams.com

SUMMARY TEST RESULTS FOR TEST REPORT

Test Date -

	ATP Test Results						
#	Location Type	Test Location	Surface Type	Parameters	Result	Pass?	
8	Non-Clinical	Receptionist Counter	Stone	<50, 101+	491	NO	
9	Non-Clinical	Receptionist Phone	Plastic	<50, 101+	437	NO	
11	Non-Clinical	Bathroom Doorknob	Metal	<50, 101+	270	CAUTION	
12	Non-Clinical	Dentist Office Armrest	Leather	<50, 101+	260	CAUTION	
10	Non-Clinical	Receptionist Doorknob	Metal	<50, 101+	165	Yes	
3	Clinical	Patient Armrest	Leather	<25, 51+	90	Yes	
2	Clinical	Mouse	Plastic	<25, 51+	50	Yes	
7	Clinical	Sink Handle	Metal	<25, 51+	50	Yes	
4	Clinical	Instrument Handle	Metal	<25, 51+	34	Yes	
1	Clinical	Keyboard	Plastic	<25, 51+	11	Yes	
5	Clinical	Patient Cabinet	Plastic	<25, 51+	11	Yes	
6	Clinical	Exam Light	Metal	<25, 51+	8	Yes	



ATP Standards

ATP Reading (RLU)	Probability of Pathogenic Biofilm		
0	0.0001%		
10	010%		
30	2%		
100	50%		
200	99%		
>300	99.90%		

Source: Z BioScience, Inc.

General Location Type Parameters (RLU)						
Location Type Pass Caution Fail						
Non Clinical Areas	<200	200-300	300+			
Clinical Areas	<100	100-200	200+			



2961 McDermott Road #200 Plano, TX 75025 Phone: 469-778-7550 www.mcsteams.com

SUMMARY TEST RESULTS FOR TEST REPORT

Test Date -

	ATP Test Results						
#	Location Type	Test Location	Surface Type	Result Parameters	Result	Pass?	
1	Clinical	Keyboard	Plastic	<25, 51+	11	Yes	
2	Clinical	Mouse	Plastic	<25, 51+	50	Yes	
3	Clinical	Patient Armrest	Leather	<25, 51+	90	Yes	
4	Clinical	Instrument Handle	Metal	<25, 51+	34	Yes	
5	Clinical	Patient Cabinet	Plastic	<25, 51+	11	Yes	
6	Clinical	Exam Light	Metal	<25, 51+	8	Yes	
7	Clinical	Sink Handle	Metal	<25, 51+	50	Yes	
8	Non-Clinical	Receptionist Counter	Stone	<50, 101+	491	NO	
9	Non-Clinical	Receptionist Phone	Plastic	<50, 101+	437	NO	
10	Non-Clinical	Receptionist Doorknob	Metal	<50, 101+	165	Yes	
11	Non-Clinical	Bathroom Doorknob	Metal	<50, 101+	270	CAUTION	
12	Non-Clinical	Dentist Office Armrest	Leather	<50.101+	260	CAUTION	

Average	Average Results vs. Material		
Materials	Materials		
Leather		175	
Metal		105	
Plastic		127	
Stone		491	
Grand Total		156	

Average Results vs. Room Type			
Areas	Average Result		
Clinical	36		
Non-Clinical	325		
Grand Total		156	

	Contamination by Fomite Type					
1	Non-Clinical	Phones				
2	Clinical	Patient Arm Rest				
3	Clinical	Dentist Arm Rest				
4	Non-Clinical	Office Door Knob				
5	Non-Clinical	Bathroom Door Knob				
6	Non-Clinical	Reception Counter				
7	Non-Clinical	Mouse				
8	Non-Clinical	Keyboard				
9	Clinical	Cabinet Handles				
10	Non-Clinical	Sink Faucet				
11	Clinical	Tool Handles				
12	Clinical	Examination Light				

Source: Journal of Dental Hygiene

THE DIRTY DOZEN - SAMPLE REPORT CONT.



2961 McDermott Road #200 Plano, TX 75025 Phone: 469-778-7550 www.mcsteams.com

SUMMARY TEST RESULTS FOR TEST REPORT

est	

	Pre-Spray Microbial Test Results							
#	Location Type	Test Location	Surface Type	Result	Pass?			
1	Clinical	Keyboard	Plastic	0	Yes			
2	Clinical	Mouse	Plastic	0	Yes			
3	Clinical	Patient Armrest	Leather	0	Yes			
4	Clinical	Instrument Handle	Metal	0	Yes			
5	Clinical	Patient Cabinet	Plastic	0	Yes			
6	Clinical	Exam Light	Metal	0	Yes			
7	Clinical	Sink Handle	Metal	0	Yes			
8	Non-Clinical	Receptionist Counter	Stone	0	Yes			
9	Non-Clinical	Receptionist Phone	Plastic	0	Yes			
10	Non-Clinical	Receptionist Doorknob	Metal	0	Yes			
11	Non-Clinical	Bathroom Doorknob	Metal	0	Yes			
12	Non-Clinical	Dentist Office Armrest	Leather	0	Yes			

Conclusions

All post-spray test locations returned no detectable microbial contamination.

No action required

Results seen after first quarterly spraying

0.00		A CONTRACTOR OF THE PROPERTY O	0.4 (0.20)		
	P	ost-Spray Micro	bial Test Re	sults	
#	Location Type	Test Location	Surface Type	Result	Pass?
1	Clinical	Keyboard	Plastic	0	Yes
2	Clinical	Mouse	Plastic	0	Yes
3	Clinical	Patient Armrest	Leather	0	Yes
4	Clinical	Instrument Handle	Metal	0	Yes
5	Clinical	Patient Cabinet	Plastic	0	Yes
6	Clinical	Exam Light	Metal	0	Yes
7	Clinical	Sink Handle	Metal	0	Yes
8	Non-Clinical	Receptionist Counter	Stone	0	Yes
9	Non-Clinical	Receptionist Phone	Plastic	0	Yes
10	Non-Clinical	Receptionist Doorknob	Metal	0	Yes
11	Non-Clinical	Bathroom Doorknob	Metal	0	Yes
12	Non-Clinical	Dentist Office Armrest	Leather	0	Yes

Conclusions

All post-spray test locations returned no detectable microbial contamination

No action required



2961 McDermott Road #200 Plano, TX 75025

Plano, TX 75025 Phone: 469-778-7550 www.mcsteams.com

SUMMARY TEST RESULTS FOR TEST REPORT

Test Date -

	Wa	ater Line Micro	bial Test R	esults		
#	Location Type	Test Location	Result	Range	Pass?	Conclusions
1	Clinical	Operatory 1	0	+-0	Yes	Some test results indicate microbial contamination
2	Clinical	Operatory 2	0	+-0	Yes	but all are within acceptable ranges.
3	Clinical	Operatory 3	0	+-0	Yes	
4	Clinical	Operatory 4	0	+-0	Yes	
5	Clinical	Operatory 5	96	+- 28	Yes	
6	Clinical	Operatory 6	0	+-0	Yes	
7	Clinical	Operatory 7	0	+-0	Yes	
8	Clinical	Operatory 8	0	+-0	Yes	
9	Clinical	Operatory 9	0	+-0	Yes	

<u>Contact Us Today To Schedule Your</u> <u>Complimentary Consultation!!</u>

