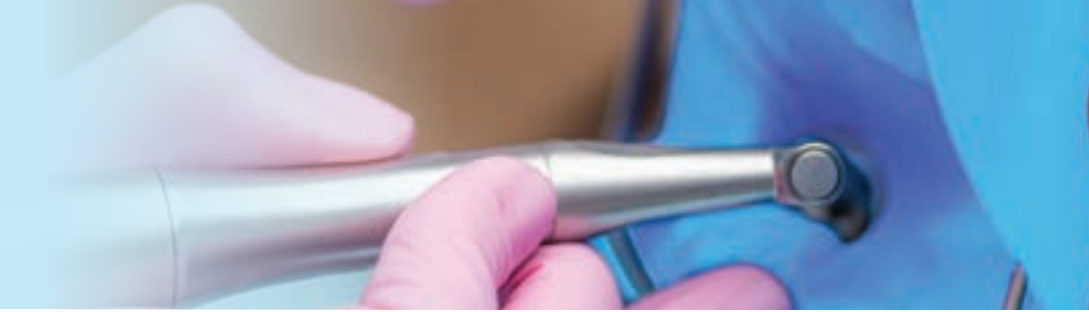




**5** REASONS  
TO USE  
**DENTAL  
DAMS**



## INTRODUCTION

# Why is Using a Dental Dam Considered Best Practice?

### **Dental dams provide considerable benefits for the patient and dentist.**

Dental dams create a hygienic environment around the teeth being treated and are particularly important when performing procedures such as root canals, where the inner pulp of the tooth is exposed and vulnerable to contamination. In fact, according to the American Association of Endodontists, “the use of rubber dam is mandatory to avoid microbial contamination of the root canal system during treatment, to retract tissues and protect the patient, prevent aspiration or swallowing of instruments, and limit aerosols.”<sup>1</sup>

Even in situations where the use of a dental dam is not explicitly required, the CDC still recommends use of dental dams to lower risk of droplet splatter and aerosol generation even when patients are not suspected to have SARS-CoV-2 infection when using ultrasonic scalers, high-speed dental handpieces, air/water syringes, air polishing, and air abrasion.<sup>2</sup>

**“The use of rubber dam is mandatory to avoid microbial contamination of the root canal system during treatment...”**

Here are the top five benefits that a dental dam can provide to both you and your patients:

### **1 - Infection control**

Dental dams are primarily used for infection control. They provide isolation around the teeth being treated, preventing saliva and bacteria contamination to the treatment area.

### **2 - Improved visibility**

Dental dams help to improve visibility for the dentist, as they isolate the area being treated and keep it dry. This allows the dentist to see the tooth more clearly and work more efficiently, which can reduce the time required for the procedure and increase the chances of success.

### **3 - Patient comfort**

Dental dams can also improve patient comfort during dental procedures. By isolating the teeth being treated, the dam can protect the patient’s tongue, lips, and cheeks from accidental injury. The dam also helps to keep the mouth open, which can reduce jaw fatigue during longer procedures.

### **4- Enhanced accuracy**

Dental dams can improve the accuracy of dental procedures, as they help to keep the treatment area dry and free of debris. This allows the dentist to work with greater precision, which can result in better outcomes for the patient.

### **5 - Safety**

Dental dams can be an important safety measure, as they can help to prevent accidental ingestion or aspiration of dental materials or instruments. By isolating the treatment area, any materials or instruments that may become dislodged are contained and can be easily retrieved.

1. American Association of Endodontists. (2020). *Treatment Standards [White Paper]*. American Association of Endodontists. [https://www.aae.org/specialty/wp-content/uploads/sites/2/2018/04/TreatmentStandards\\_Whitepaper.pdf](https://www.aae.org/specialty/wp-content/uploads/sites/2/2018/04/TreatmentStandards_Whitepaper.pdf)  
2. Centers for Disease Control and Prevention. *Interim Infection Prevention and Control Recommendations for Healthcare Personnel During the Coronavirus Disease 2019 (COVID-19) Pandemic*, (Sept 2022). Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. <https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html>

# What to Consider When Using a Dental Dam?

There are several aspects that a dentist should consider when deciding whether to use a dental dam during a procedure. Here are some of the key factors:

## Procedure Type

Certain procedures, such as placing restorations, endodontic, and certain periodontal treatments, may require the use of a dental dam to provide an aseptic field and prevent contamination.

## Patient concerns

Some patients may have a latex allergy; therefore, the dentist should use a non-latex product.

## Accessibility

The dentist needs easy access to the treatment area while the dental dam is in place; so the location and treatment area must be considered.

## Time

Some dentists may think that using a dental dam increases chairside time; however, using a dental dam can essentially help save time. It streamlines the process by isolating the area of treatment and allowing for greater precision and better outcomes for the patient.

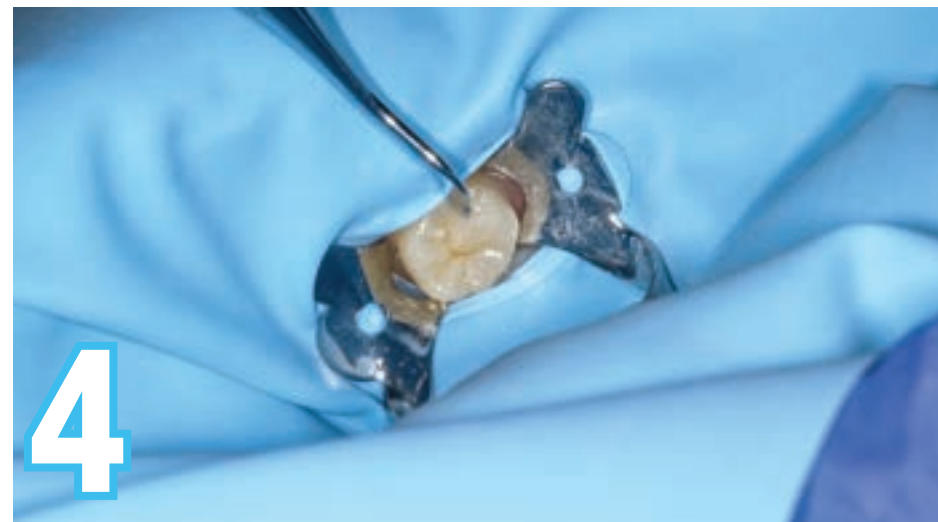
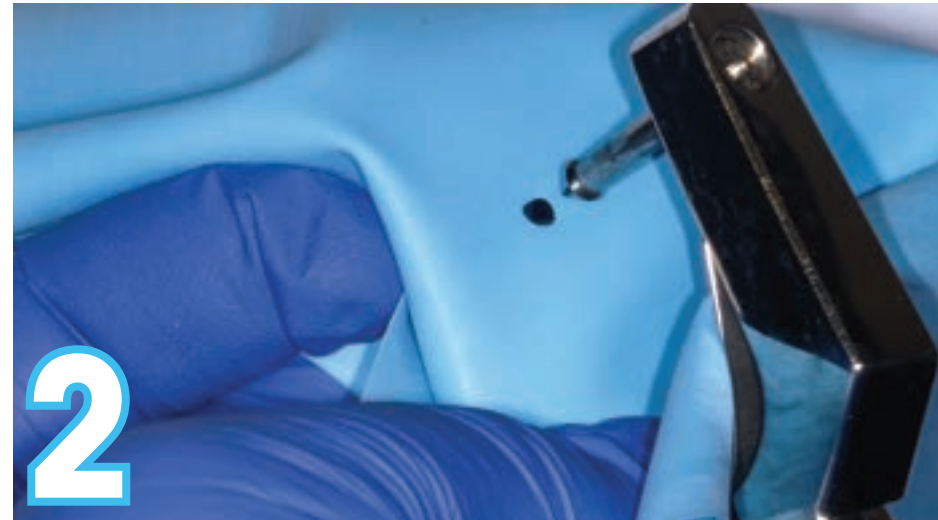
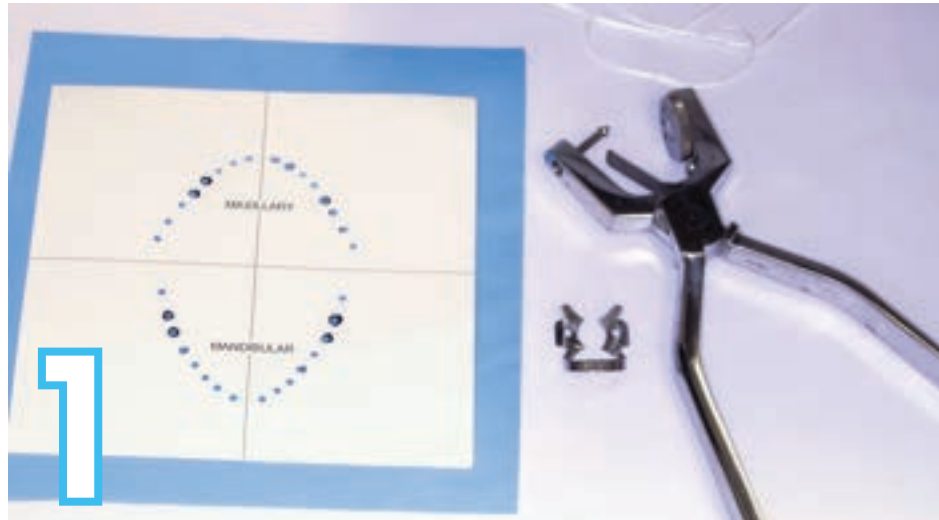
## Efficiency

With isolation and increased predictability, it can reduce procedure time which equates to an increase in productivity!

**Overall, the decision to use a dental dam should be based on a careful evaluation** of the specific procedure, the patient's needs, and the dentist's assessment of the benefits of using a dental dam.

*Photo credit: Dr. Johnna Mills*





## What Are the Advantages of Polyisoprene as a Dental Dam Material?



Polyisoprene is a synthetic rubber material that has several advantages when used as a dental dam material. One of the main advantages is that it is non-latex, making it an ideal choice for patients who have allergies to latex. Additionally, polyisoprene is biocompatible, meaning it does not cause an adverse reaction with living tissue.

It is also strong and tear-resistant, providing a reliable barrier between the treatment area and the rest of the mouth. Finally, polyisoprene is elastic, allowing for easy placement and a comfortable fit for the patient. Overall, polyisoprene is an excellent choice for dental dams due to its biocompatibility, strength, and elasticity.

### Dam Placement

1. Rubber dam set up
2. Rubber dam hole punch
3. Rubber dam clamp placement
4. Rubber dam adjustment around clamp
5. Rubber dam final placement

*Photo credit: Dr. Matthew Miller*



# Why Use ISODAM?

ISODAM is a powder-free non-latex dental dam formulated from synthetic polyisoprene. It is pre-cut and formulated to provide exceptional stretch, strength, and tear-resistance while eliminating the potential for allergic reactions associated with latex products. ISODAM is available in light blue (for reduced eye fatigue) and royal blue (for increased contrast), supplied in 5" x 5" and 6" x 6" square sheets in both medium and heavy gauges, and is appropriate for all operative dentistry procedures. ISODAM also provides the option for either standard or economy packaging.





## Editors' Choice



**"THIS IS PROBABLY THE BEST DENTAL DAM I HAVE EVER USED. I WAS VERY PLEASED WITH IT."**

In a recent Dental Advisor evaluation, **ISODAM** was awarded **Editors' Choice** with a **96% overall rating** with one evaluator declaring that ISODAM "is extremely flexible and doesn't tear when stretching it" and another adding it was "easy to place and floss it through without the need for lubrication of the dam." Evaluators noted that the tear resistance of ISODAM was very good and found it performed at least as well as latex dams. Holes can be placed close together, as the material readily stretches. The surface smoothness allowed easy placement between teeth. Once in place, ISODAM was durable. The light blue color was neutral and easy on the eyes. Overall, 100% of evaluators were happy to recommend the product to their colleagues, and 96% decided that they would be making the switch to ISODAM themselves.<sup>3</sup>

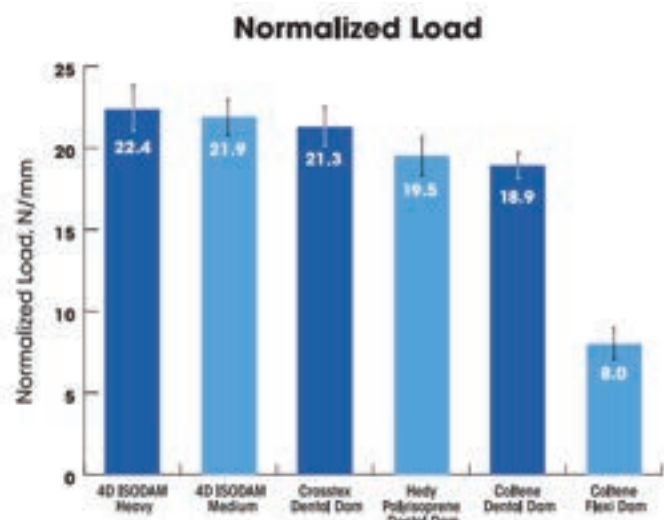
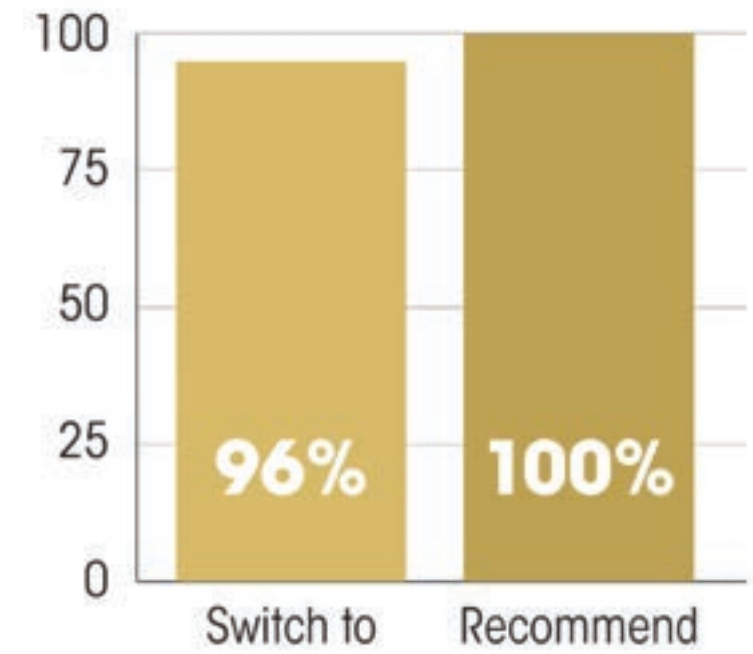


Multi-hole punch placement

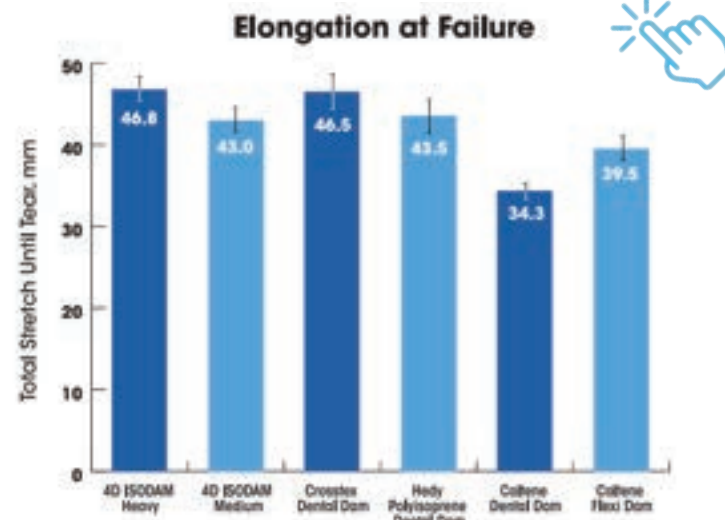


Post-removal

### Percentage of Consultants Who Would:



**Fig 1.** The normalized load which is the load at failure divided by the thickness, shows the amount of load each material could withstand before failure. A lower value can imply either a lower resistance to stretching (pliability) or failure occurs at a lower overall load.



**Fig 2.** Elongation at Failure shows the total linear stretch the punched hole could withstand before tearing. Higher is better.

## Best-in-Class Tear Resistance

A common complication with dental dam placement is tearing, initiated from the punched hole as the dental dam may need to stretch to over 30 mm in some cases, so Dental Advisor developed a test to stretch the dental dam material from within a punched hole until failure. According to Dental Advisor's 2020 Biomaterials Research Report, the **4D Rubber ISODAM had the best-in-class tear resistance among the non-latex dental dams tested in these conditions.**<sup>4</sup> This further contributes to the time-savings that ISODAM provides, as the high-tear resistance can prevent most rips, reducing the need to have to start placement of a dental dam over.

Photo credit: Dr. Johnna Mills  
3. Dental Advisor (2019) Editors' Choice Evaluation Report  
4. M. Cowen, J.M. Powers (2020). Non-Latex Dental Dam Tear Testing Comparison. Dental Advisor Biomaterials Research Report, Number 143

# LEARN MORE:

Since 1983, DENTAL ADVISOR has been a trusted expert to dental professionals worldwide with concise, accurate, and objective information. We combine clinical experience with laboratory data and report on long-term in-vivo performance of materials over time. The mission of DENTAL ADVISOR is to provide the dental profession with evidence-based and clinically relevant information on dental restorative products, infection control products and dental equipment. DENTAL ADVISOR reports objective clinical evaluations, product comparisons, comprehensive long-term clinical performance studies, and unbiased laboratory test results.

ISODAM Website



4D Rubber ISODAM Dental Advisor Clinical Evaluation



## Dental Advisor Non-Latex Dental Dam Tear Testing Comparison



4D Rubber ISODAM Official Dental Advisor Video

