

The Truth About Mouth Guards

by

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Introduction

In the dental office, we can make a number of different mouth appliances. The different designs vary in so many ways. One dentist's mouth guard to relieve pain can be dramatically different from the same design from the other dentist.

One design guard can work on many people but will not work on others. It depends on so many factors that all cannot be pinpointed and identified here. But, I will describe a few examples.

The anterior guard will help reduce TMJ pain for many people. In fact, it has the possibility to reduce the highest degree of pain the fastest. However, sometimes the angles of the occlusion (the way or direction the teeth close together) are such that the jaw could be forced backwards or posteriorly, which can cause pain.

So, in this case the "best" mouth guard for TMJ pain can actually cause you *more* pain.

It *does* help to have an experienced TMJ Dentist to monitor this. Nevertheless, even this example can bewilder even the most seasoned TMJ Dentists.

I had a woman call me from Ohio seeking help. She had been wearing an anterior appliance for close to 10 years. But in the last year she has had more pain. Consequently, she sought help from her local TMJ Dentist. He couldn't help her. So, I asked her to try the "Spainhower method" to modify a store bought night guard.

She tried it and she was out of pain *immediately*. So what happened? Here I am in Utah and giving suggestions to a person across the country in Ohio whom I haven't met in person yet I can help relieve her of pain when her local doctors couldn't?

Well, the design of the modified guard that I suggested may NOT be the cure, but it could have been only a CHANGE in her proprioception in her masticatory muscles. I don't know for sure, but it sure did work.

So, what can she do? Well, the guard that relieved her pain can work at least temporarily until she can see a local TMJ Dentist to further evaluate her issues.

What I'm trying to convey is that some guards may and can work for many people, and yet the same guard may NOT work for other people. It really is a trial and error sometimes as we cannot relieve TMJ pain every time for every person.

The reason for that is that there are so many differing variables like stress and medical conditions.

Let's talk about those medical conditions.

TMJ Medical Conditions

From 1993 to 2003, I played basketball every Monday, Wednesday and Fridays at 5:30 a.m. But, in 2003, or even starting in 2002, I could not play past 10 minutes or so when my back would spasm, go out of place and force me to leave the basketball court. I would then pray that my chiropractor could get me in that day.

So, I would see the Chiropractor for my back every time I played basketball. I would do about 1,000 stomach crunches and 500 push ups to strengthen my torso. I would go to the gym and do rows on the rowing machine.

Well, I had a problem with my gall bladder. I had it removed. During the first week of recovery after my gall bladder was removed, I felt pretty good in my upper back. I thought that was pretty nice. After a month of not having any back spasms, I was bewildered at the fact that my back was feeling good.

Well, my back problem was gone, so what just happened? My theory is that the messages in my nerves coming from my gall bladder were traveling up to the brain affected the nerves in my upper back muscles. Call it arcing, or crossover. Bottom line, I'm convinced that my bad gall bladder was affecting my upper back muscles to spasm. So, I believe the same thing can occur with the jaw muscles,beit rare, but things like that can cause people to have problems in the neck, jaw and head. So many other factors can cause TMJ.

Okay, back to mouth guards.

Now, there are dozens of mouth guards out there. I will write reviews about each guard that I have tested, talk about the characteristics of each guard, talk about the likelihood that each will relieve pain, and give you my recommendations.

One thing that I need to make clear is that basically every guard has the potential to relieve jaw or TMJ pains! However, most of them also have the possiblity to *cause* TMJ pain. Some have a greater possibility of causing more pain in fact. And some have a greater probability to reduce TMJ pain.

So that said, this is what happens when pain is relieved with a mouth guard...

When you put a guard in your mouth, it changes the proprioception of your nerve/muscle sensories (when the nerves in the teeth sense when the tooth is touched, either by a guard or opposing teeth). Then the muscles that are hurting, oftentimes stop contracting as much. Why? Well, it's because the new guard or appliance in your mouth has just changed the contact sensory messages to your brain resulting in a change of contractions.

That means that some muscles that are hurting ***stop contracting and relax and stop hurting***. Also, it starts contracting other painfree muscles to contract and eventually it may cause those new contracted muscles to hurt over time. So, what does all of that mean?

Well, the bottom line is most any guard can help you relieve your TMJ pains ***or cause*** you more pains. That said, there are guards that have a greater probability and possibility to reduce your pains, and some that will probably cause you more pains. It just depends on the individual's specific situation and how the different guards are used and fit your mouth. Sometimes it depends on how the person fits the new guard to their teeth or mouth.

For example, The Doctor's Night Guard is a good guard, but if you don't bite down hard enough to fit it to your mouth, you'll most likely have worse problems wearing it. So, what do you do? You need to understand a few aspects of each guard that you're are considering purchasing. So, first off, it is better to buy the guard that has the lowest probability to ***cause*** you more pain. Then, make sure that you are wearing it correctly.

General Recommendations

So, here are the general recommendation that you need to pay attention to.

The soft football mouthguards are generally ***terrible*** and can cause more problems (if they are ***not*** modified). The mouth guards that have a bilaminar (two-layered) design are better -- ***if they are modified***. So, basically there are only two mouth guards on the market that consistantly ***do*** relieve pain ***without*** modification. That is the SmartGuard, and the Aqualizer.

The TMJ Appliance and the RCM Double Arch can reduce pain, but they come with other negatives, such as bulkiness and poor sleep quality. Also, they promote more clenching which will hinder pain reduction.

The SmartGuard will reduce almost any and ***all*** TMJ problems. Notice that I said... ***reduce***, because there are some TMJ problems that are difficult to obtain a correct diagnosis for. However the SmartGuard should ***reduce*** the pains better than any other guard.

If you have popping and clicking and locking of the jaw, the RCM Double Arch night guard will do the best at stopping the problems better than any other guard hands down. You need to know that the clicking, popping and locking is reduced for night time only, after an hour or so after taking the guard out of your mouth in the morning the clicking and locking can return, but should be less of a problem.

Ok, I just said..."should be less of a problem". It is possible that you will experience some more difficulties as the tissues in the TMJ's heal, but generally you should experience an overall improvement with the TMDysfunction.

For the available mouth guards, I'll give you my recommendations and tell you the ones that I like and don't like...but remember, even the ones that I don't like (because they are likely to

cause more pain), may in fact work just fine for you. So, keep an open mind with all guards and make a choice. You just need to understand what might go wrong *if* you continue to have pain or even have more TMJ pains, and what you should do when that happens.

Let's go over the popular guards that are available on the Internet and "over the counter" products in the stores.

The first one that I'll talk about is...

The SmartGuard

This is the best "Overall" best Night guard for TMJ Symptoms available. It also protects your teeth from the affects of grinding. The downfalls of this guard is that it won't be the best guard for you if you have a very small mouth, a small arch width of your teeth or a very high palate. Generally it will work for about 80% of the population. Also, if you have an end to end bite in the front teeth, it may not work well for you.

The problem is that the alternatives are much worse in many different areas, so my recommendation is to try the SmartGuard first, because it most likely will work better for you.

The surprising symptom that this guard reduces, is the tension headache and even some "migraine" headaches. It seems that the most common symptom relieved as much as jaw pain, is the headache. Statistics show that 82% of headache sufferers will have a 77% reduction in their headaches from wearing this guard.

The SmartGuard is the best one that I've found that you can buy off the Net, and it's a lot cheaper compared to the ones you get from your Dentist.

There are big differences, and you as a Consumer would never know the difference of which one works best unless you tried multiple guards.

Now I have done the work for you. If you're wanting a Night Guard, get this one...

The second guard is the Doctor's Night Guard.

The Doctor's Night Guard

I recommend this one for teeth protection only. But be carefull, because if you want it to reduce TMJ pain, it's best if you modify it as I describe down below in this ebook. If you don't, it's a 50/50 chance that it'll reduce your pain.

This guard has a flat biting surface, which is what you want to reduce pain (with a full tooth coverage guard) the quickest, and have the fewest possibilities of it causing you pain.

The biggest problem with this guard is the difficulty of molding it to your teeth/mouth. Here are some tips to help you successfully mold it to your teeth:

#1. After pulling the guard out of the boiling water, place it in your mouth on your top teeth and...bite down hard...I mean hard. Bite down so that your upper teeth bite all the way down to the inside bottom hard layer material.

#2. Keep the guard in your mouth for about three minutes when fitting it to your teeth. It's a long time to keep in but it'll help reduce distortion after taking it out to cool it in cooling water. After the three minutes, take it out and cool it under running tap water.

#3. Now, if you want better and quicker pain relief, cut the back ends off. Cut off of the guard where the last two big molars are impressed in the guard.

The third guard is the Dentek Custom Night Guard.

Dentek Custom Comfort Night Guard

This use to be a good guard for TMJ pain relief, but the company has changed the design, and now it's worse for pain relief. But, that is because they did not design this for pain relief, it is designed for tooth protection from grinding.

You might be able to modify it as I describe below to reduce your pains, but will not work as well as others recommended.

Buy this one for Tooth protection, only if you don't have TMJ symptoms.

Follow the same tips during the molding process as I stated in the Doctor's night guard tips.

Aqualizer

This guard is one of the few guards that I've tested that actually can reduce TMJ pain. However, it is not a slam dunk. This one is better than all others to wear during the day as it allows you to speak almost normally. But...

I didn't like this one personally at night as it kept me up thinking that I was going to inhale it. Plus, it flopped around in my mouth a bit so much so that I had trouble sleeping. The design is not for long term night time usage as there has been many reports of the guard breaking and not lasting very long.

The owners stated that this is designed for diagnostic methods for Dentists, but is the best one to wear during the day because it is small and easy to talk with compared to all other guards. Also, the owners do not allow me to sell this on my website, so to purchase this one, go to their website to order.

I recommend this one for day time use only.

The Dentek Comfort Fit Night Guard

This is a very small and light guard. It was developed primarily to prevent you from grinding your teeth. It *does* protect your teeth, but then again any guard made will protect your teeth *if* it stays between your teeth and in your mouth. This guard is on the low end of my recommendation list as it is small enough to inhale and can flop around in your mouth a bit.

But, some people may like this one for it *does* have the possibility to reduce TMJ pain due to the change in proprioception of the muscles and how they contract. Still, this is on the bottom of my recommendation list to reduce TMJ pain.

Tip:

If you purchase this one, push the biting tabs all the way forward towards the front of your mouth to help reduce pain, and thus reduce the chances of causing even more pain.

The Sleep Right Rx Family of Guards, Made by Splintek

They have several guards that are similar, two of which are the Dura-Comfort and the Slim-Comfort.

The Dura-Comfort is more durable and stronger. I personally like this over the Slim-Comfort model.

One symptom that I personally experienced is tooth aches from these guards. But, over time, the clenching should be reduced and so should the toothaches.

Continuing, both of these will protect your teeth from the affects of grinding, but they are not the best ones to choose for TMJ pain reduction. However, because of different muscle contractions due to the changes in proprioception, these guards can reduce your TMJ pain, not as likely as others, but they may work for many people.

Tip:

If you choose to purchase one of these guards, move the biting tabs forward, toward the front of your mouth for better results.

The RCM Family of Guards

RCM has three guards. They are:

- The double arch guard
- The upper arch guard
- The lower arch light guard

I wouldn't buy either of the upper or the lower (light) arch guards for pain relief. They might relieve some pain, but they also cause more clenching. More clenching can exacerbate your pains or significantly slow your pain treatment.

The double arch guard can help you reduce your popping and clicking in your TMJ joints as it holds your lower jaw in a forward position. This can reduce TMJ pain and at the same time reduce your dislocating TMJ disc.

You'll wake up in the morning with the teeth unable to close together of an hour or so. So, it is a trade off: you can't bite teeth together for an hour or so, versus sensitive teeth as this guard *does* promote a bit more clenching throughout the night.

I recommend this one *only* if you have significant issues with popping, clicking or locking jaws during and/or after you sleep.

The Doctor's Night Guard Advanced Comfort

This guard was developed to reduce the bulky feeling at the front upper lip area. I don't like this one much because, it is not as stable as "The Doctor's Night Guard Classic". If you just want to protect your teeth from the affects of grinding your teeth, then this one will work, but for TMJ pain reduction, try other guards as others will work better, more often and for more people. If you modify this guard like I describe below, it'll probably fall out of your mouth easier than other guards.

So, it's *not* high on my recommendation list.

Stress Guards and Stress Guards II

These two guards are a medium and large sizes for people with braces. I like these for people with braces as people going through orthodontics often have their teeth worn down through the process. So, to protect teeth from the affects of grinding during orthodontic procedures, these guards are good.

If you want TMJ relief, they won't be as good as the ones's already recommended. They are loose in the mouth and could cause *more* TMJ pains, but they would be better than the anatomical or soft guards that cover the back teeth (like a non-modified football mouth guard).

Recommendation? Use when you have braces.

Guards That a Dental Laboratory Will Make

Guards that a dental laboratory will make you and send through the mail include the following information.

Generally, these will not be as good to relieve TMJ pains compared to all of the guards I have reviewed. The problem with these are that they are usually soft inside and outside. Meaning, that they usually will be a boil-and-bite material made on models from impressions that you send them. You can do almost the same thing by molding a football or athletic mouth guard to your teeth yourself.

However...

Some labs will make you a mouth guard that has a hard surface where the opposing teeth bite against. If this is the case, this is better than the all-soft ones. Still, they will be inferior to all of the guards I've reviewed, except for the RCM mouth guards. They will be equal in quality regarding the probability of causing pain or reducing TMJ pain.

Recommendation: Don't buy them unless you want to protect your teeth only. They will do a fine job of protecting your teeth. These usually cost from \$35-70 dollars for these custom-made mouth guards sent through the mail, so the other guards that I've reviewed above will be better or equal, for a half or a third of the cost.

The TMJ Appliance

This night guard is made in Australia. This guard costs about \$75-90 American dollars with shipping.

Although, it won't cause pain like the other mouth guards that I've listed above. The pain reduction will not be as effective, but still should reduce pain. The reason is, that it encourages clenching, and clenching is the root of most of TMJ pains.

The guard pulls your jaw forward which is good to relieve pressure and pain, but it promotes clenching at the same time. You do not boil and bite this guard as it is a one size fits all.

My opinion is that you need a well molded fit for the guard so that it holds your jaw snug. In this case, in a forward position. I tried sleeping with it, but it was very awkward, bulky and moved around in my mouth being the largest guard I've seen.

Because it directs your jaw forward, it *does* help prevent severe grinding which usually results in jaw issues. So, you're pretty safe that it won't cause more problems, but it won't reduce the pain as well as other guards I've talked about.

Recommendations List

To conclude my recommendations to relieve jaw pain and headaches, I'll list my recommendations in order of *best to worst* for general TMJ pain. Enough adieu, here it is:

- #1 The SmartGuard
- #2 The Doctor's Mouth Guard (modified).
- #3 The Aqualizer Guard
- #4 The Double Arch RCM Night Guard
- #5 The TMJ Appliance.
- #6 The Sleep Right Night Guards.
- #7 The Dentek Comfort Fit Night Guard.
- #8 The Stress Guard I and II.
- #9 The Upper Arch RCM Night Guard.

- #10 The Lower Arch RCM Night Guard.
- #11 The Laboratory Internet Made Soft Night Guard.
- #12 The Doctor's Night Guard (NOT modified).
- #13 The Doctor's Night Guard Advanced comfort (NOT modified)

Popping & Clicking Mouth Guard Recommendations

Now, for popping and clicking, the most consistent mouth guard to reduce popping, clicking, and locking are:

- #1. Double Arch RCM Mouth Guard.
- #2 The SmartGuard Night Guard
- #3 The Aqualizer Night Guard.
- #4 The TMJ Appliance

Appliance for Headache Reduction

- #1 The SmartGuard Night Guard.
- #2. The Doctor's Night Guard that is modified.
- #3 The Aqualizer

The "Spainhower Method" to Modify Your Store-Bought Mouth Guard

For a "do-it-yourself-at-home" TMJ Appliance and pain relief, go to the department store where they have a sporting goods department. Seek out and look for the athletic mouthguards. Purchase the cheapest (the 1 or 2 dollar one), clear in color, plain football mouth guard (the fancy color ones don't work as well). The mouth guard should have the football facemask strap on it. This strap is purely for holding it in the boiling water when you are conditioning it to fit it (the TMJ appliance) to your teeth.

After you fit your temporary TMJ appliance, and cool it down in cool water, then cut off the strap. Then continue to cut off the back teeth extensions of the mouthguard (on each side). This is accomplished by cutting with scissors the last two to four teeth on the mouthguard (if you have all of your teeth). So, after the cutting, you should have 6-10 teeth left in the guard that go

into the mouth. Cut off the sharper corners to make it comfortable.

Another way to describe this is if you started counting on your two front teeth and move simultaneously to the left and the right, one tooth each way at a time. Then at the same time counting the two teeth at a time.....2...4...6...8...10. That's up to ten teeth counted in the TMJ mouthguard.

Now, if you've never fit an athletic mouthguard to your teeth, then get some tips by someone that has. After following the directions on the packaging, which usually involves dipping the guard in boiling water for 30 seconds until it shrivels all up, pull it out of the boiling water and set it down to cool for about 2-5 seconds, then place it in your mouth on your top teeth.

Now, kind of bite into it (not through it). Next, suck the moisture out of it as you push it on to your teeth and gum areas with your finger tips. This adapts the mouthguard to *your* teeth and gums. The better the snug fit, the better it'll stay in your mouth without falling out while you sleep.

Wear the guard while sleeping and anytime during waking hours that you feel that you can. When wearing it at night, it might fall out of your mouth, just try to find it and put it back in when you wake up and notice it's gone. This usually is effective enough to experience a reduction with any TMJ pain.

Warning...warning...warning...Do not wear the following guard more than 12 hours per day...

What I want you to do is, cut off the guard so that you have 10 teeth in it. If it works, great, leave it alone. If it doesn't reduce pain or even makes your pain worse, cut off one more tooth on each side. It's best to start with 10 teeth because it will stay in your mouth better compared to having only six teeth in the guard.

Warning...warning...warning...do not wear the following guard more than 12 hours per day...

Having only six teeth in the guard potentially will reduce your TMJ pain better -- if it stays in the mouth. So, start with the 10 teeth mouthguard first. Then, if needed, go to an eight tooth guard, then to six if needed to reduce your pain.

Warning...warning...warning...do not wear the following guard more than 12 hours per day...

That's it. That's the do-it-yourself-at-home TMJ night guard. Besides purchasing the SmartGuard or the Aqualizer, the only way potentially to make a better one is to purchase "The Doctor's Night Guard" and modify it the same way as described above. They are the best possible TMJ pain relievers available! Try the SmartGuard first, then the Aqualizer or the MODIFIED Doctor's NightGuard Classic.

Tips for fitting the Doctor's Night Guard

Many of you will try to mold it to your mouth and fail to get a good mold. If it doesn't mold well to your mouth, then it won't work for you, or even worse, cause more symptoms. Here are some pointers for molding the doctor's night guard. When you place the hot moldable guard in your mouth, bite down hard! Bite down so that your upper teeth bite down on the harder material down deep. ***That is the trick or secret!*** Also, push with your fingers on the front to adapt the rubber to your teeth and gums well. Now, cut off the back molars off of the guard. Then follow the above instructions to modify the appliance.

We treat most patients with a TMJ splint, Even when stress is the primary factor. Since most TMJ jaw pain is "muscle pain" and since the splint changes the proprioception (what the nerves in the muscles feel and how they direct the jaw to contact on the teeth), which alters the contractions of individual muscle fibers, it relieves those individual muscle fibers of work, fatigue and pain.

There you have it! I sincerely hope this information is helpful to you.
Best regards,

Dr. David Spainhower, D.D.S.

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