

## IMPORTANT DATES

### **December 4-7**

*RAYS Nutcracker Classic  
Athletes w/BB+ Times  
Prelims & Finals  
JRSSC - Stafford, VA*

### **December 5-7**

*NOVA December Dip  
All 12 & Unders with B/C  
Times and 13 & Overs  
NOVA-Regency*

### **December 10-13**

*USA Swimming Speedo  
Junior Nationals - East  
Qualified Athletes  
Indianapolis, IN*

### **December 13**

*Wreaths Across America  
All Quest Swimmers &  
Families - see Email from  
12/1 to sign-up to volunteer  
Amelia Veterans Ceremony*

### **December 20-26**

*Christmas Break  
NO Practices!*

## TEAM MESSAGE FROM COACH JOHN

As we approach our December Mid-Season Championship meets, you will begin to see most of the competition, ages 13 & Older, racing in Technical Suits. While I personally do not love that the sport has moved in this direction over the years because they are very expensive, the saying "it is what it is" seems most relevant to me.

While racing in a Tech Suit does not guarantee time drops, good meets, and finals swims it is important to recognize that they do provide some enhancements. Those that have prepared the best during the season in practice attendance, effort and focus, dryland, as well as sleep and nutrition usually are the ones that see the most significant impacts.

On the following page, I have included an article from Swimming World Magazine in December 2024 that helps to provide some education on how the technology in the suit making today helps to make a performance difference.

*\*NOTE: Per USA Swimming, 12 & Under swimmers are not allowed to use technical suits. The Midlothian Swim Shop employees can guide you on what is (and is not) allowed for 12 & under swimmers for regular meets and designated championship meets.*



# Quest For Excellence

# An Explanation of How Tech Suits Benefit Swimmers

By Carly McAdam - Swimming World Magazine, December 2024

When it comes time to race, many swimmers, especially those racing in high-level competitions, wear specialized knee-length swimsuits known as tech suits. They're everywhere in the swimming world.

But how do tech suits work? And do they actually make you faster?

According to a study done by [Journal Of The American College Of Sports Medicine](#), the suits significantly improve swimming performance. The study found that, on average, swim performance improved by 3.2% when swimmers wore a tech suit as opposed to a regular training suit. Additionally, the study found that tech suits can reduce drag by 4.4% to 6.2% and reduce the amount of energy needed for swimming by 4.5% to 5.5%.

Manufacturers use a variety of technologies when making tech suits in order to enhance swimming performance. One of the most important aspects of how tech suits work is the muscular compression they provide. According to [Swim Competitive](#), muscular compression increases muscle activation and allows blood to circulate more quickly. Increased blood circulation leads to faster replenishment of oxygen and nutrients in the blood and faster removal of lactic acid and toxins. Muscle compression ultimately reduces fatigue and increases power, leading to faster swimming.

Tech suits are also made of a lightweight fabric, which allows swimmers not to be weighed down by their suits – an example is carbon fiber. In addition to being lightweight, tech suits are often made with water repellent fabric. This decreases water saturation and creates a frictionless surface that reduces drag. These suits are also almost completely seamless, which decreases drag and allows the suits to have a tighter fit. Arena, Speedo and TYR often use terms like 'power skin' and 'second skin' when referring to their suits, which are smooth and fit tightly.

According to [Swim Competitive](#), many tech suits include technology that can link muscle groups together and increase power. Some suits are woven in a way that connects muscle groups, while many newer suits use carbon bands and internal muscle taping to increase power. The way that the taping is placed can pull muscles in certain directions to bring muscle groups together and allow them to work more efficiently together.

One study, conducted by Hartmutter Sandner involving 15 French athletes, found that tech suits can even increase stroke rate. The study suggests that the fit and material of tech suits creates very little resistance when swimming, which allows for longer gliding periods and increased efficiency. This led to an improved stroke rate and ultimately faster swimming.

In addition to physical benefits, these suits can also have psychological benefits that can improve performance. According to [Pro Swimwear](#), swimmers will *feel* faster when wearing a tech suit. Even if the suit isn't actually making a difference on its own, the feelings of confidence and readiness that come from wearing a suit, that is advertised as technical and fast, can lead to faster swimming.

**Teaching the Art of Swimming & Playing the Game of Racing**

MIDLOTHIAN SWIM SHOP

*Merry  
Christmas*

SORRY, WE ARE  
**CLOSED**

DECEMBER 19 - JANUARY 4

**REOPEN**  
JANUARY 5

*See you in  
the new year!*

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