TENNIS | MOVEMENT | PERFORMANCE

FORCE *BEFORE* FORM

WHY BETTER TENNIS STARTS BEFORE THE SWING

A New Way to Think About Movement, Balance, and Force Control in Tennis

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|| A Different Way to Look at Tennis ||

This e-book started with the question…

Why do some players with beautiful strokes struggle to perform, while others with less polished technique seem to find a way to compete, adapt, and win?

Part of the answer lies in something we don't talk about enough in tennis…

What happens before, during, and immediately after the stroke?

How does a player manage their bodyweight and momentum?

Can they establish a stable base?

Stay organized while moving?

Absorb force?

Change direction?

Recover for the next ball?

I call this **Force Control**.

This isn't a pitch for replacing technique, footwork, fitness, or traditional tennis instruction. It's about adding another lens for understanding why those things sometimes work and sometimes break down.

Whether you're a player, parent, or coach, my hope is that the pages ahead cause you to notice things you've been watching for years but perhaps haven't been looking for.

Because sometimes the problem we see isn't where the problem started.

And that raises a much bigger question…

|| What If We're Fixing the Wrong Problem? ||

I've spent thousands of hours on tennis courts as a player, coach, and student of the game.

And throughout those years, I've noticed something that never quite made sense.

Some players have beautiful strokes and struggle to win matches. Other players have unconventional swings, less polished technique, and somehow seem to find ways to compete and win.

If tennis success were simply a matter of having better strokes, that shouldn't happen.

But it happens every day.

You've probably seen it.

A player looks fantastic during warmups. The forehand is clean. The contact point looks good. The ball sounds great coming off the strings.

Then the match begins.

They're pulled wide.

They arrive late and reach.

They lose their balance.

Their timing disappears.

Their mechanics break down.

Suddenly, the forehand that looked so good five minutes earlier doesn't look very good at all.

What changed?

Probably not the forehand.

The player simply lost the physical conditions that allowed the forehand to work.

That distinction has fundamentally changed the way I think about tennis development.

For years, like most coaches, I looked first at what I could see: the stroke. I studied grips, contact points, swing paths, footwork patterns, and technique.

All of that matters. It still does.

But eventually I started asking a different question:

What if the stroke is sometimes where the problem shows up, but not where the problem begins?

That question led me toward Force Control.

And it changed the way I see tennis.

|| Force Control Doesn't Mean Hitting Harder ||

This may be the biggest misconception we need to clear up immediately.

When players hear the word "force," they tend to think about power.

Harder serves.

Bigger forehands.

Faster movement.

But that's only one side of force.

Here's the simplest definition I've found…

Force Control is your ability to manage your bodyweight and momentum while moving.

> *I learned that good movement isn't just about being faster. It's about staying balanced, getting organized, and recovering for the next shot.*
>
> — Force Control Program Participant Feedback

Think about what happens during a single tennis point.

You start.

You stop.

You accelerate.

You decelerate.

You load.

You rotate.

You absorb momentum.

You change direction.

You recover.

And then you have to do it all again.

The challenge isn't simply creating more force.

The challenge is controlling the force you've already created.

A fast player who cannot stop efficiently has a problem.

A powerful player who cannot maintain balance has a problem.

A player who reaches a wide ball but cannot recover has a problem.

And none of those problems are necessarily stroke problems.

They're Force Control problems.

That's the shift.

Good tennis movement isn't simply about getting somewhere quickly.

It's about getting there in a position where you can do something useful.

|| "But I Got to the Ball" ||

This is something I see all the time with junior players.

A player gets pulled wide. They sprint after the ball, reach it, somehow send it back over the net, and then they're completely out of the point.

But technically, they "got there."

Did they?

Physically, yes.

Functionally, maybe not.

There's a big difference between reaching a tennis ball and arriving at a tennis ball under control.

Can you arrive with a usable base?

Can you control your center of mass?

Can you maintain your posture?

Can you absorb your momentum?

Can you produce force in the next direction?

Can you recover?

This is why I don't think movement should be defined simply by whether a player reaches the ball.

> *I used to think good movement just meant getting to the ball. This helped me understand that how I get there, how balanced I am, and what I do afterward matter just as much.*
>
> — Force Control Program Participant Feedback

Movement is getting to the ball in a position where you can do something useful.

That may mean attacking.

It may mean defending.

It may simply mean surviving the shot and recovering.

But the player must remain capable of solving the next problem.

One of the observations that came out of our first Force Control training group described exactly what we were trying to accomplish:

"They can go out wide for a ball, they're a little off balance, and now they get planted and they're able to recover."

That is Force Control.

Not just reaching.

Arriving.

Controlling.

Recovering.

|| The Five Questions Your Body Has to Answer ||

The more I studied tennis movement, the more I realized that what initially looked complicated could be simplified.

Almost every movement on a tennis court requires the body to answer the same basic questions.

Those questions became the Five Pillars of Force Control.

1. Foundation: Can You Establish Your Base?

Everything starts with the ground.

Before you can move effectively, stop effectively, rotate effectively, or recover effectively, you need a platform capable of supporting what comes next.

A poor foundation often looks like reaching, lunging, narrow or unstable positions, or a player who never quite seems "set."

A strong foundation doesn't mean standing still.

It means establishing enough support to interact effectively with the ground.

2. Alignment: Can You Organize Your Body?

Once a base is established, the body has to organize itself.

Head position. Spine. Hips. Shoulders. Legs.

They don't need to look perfect, but they need to work together.

When alignment breaks down, players often appear disconnected. Their upper and lower bodies stop cooperating, posture collapses, spacing suffers, and timing becomes inconsistent.

3. Balance: Can You Control Your Center?

Balance is not simply the ability to avoid falling over.

In tennis, balance is the ability to control your center of mass while the game is constantly trying to move it.

Can you load on one leg?

Can you move wide and remain controlled?

Can you hit while moving and still organize yourself?

Can you maintain enough control to make a good decision?

That's tennis balance.

4. Force: Can You Absorb It and Produce It?

This is where things get interesting.

Players don't only create force.

They absorb it.

Every time you stop, land, or change direction, your body has to deal with momentum.

Then it has to produce force again to move somewhere else.

The best movers aren't simply explosive.

They're excellent at the transition between absorbing force and producing it again.

5. Recovery: Can You Do It Again?

A beautiful shot doesn't help much if it leaves you unable to play the next one.

Recovery is the ability to reorganize after movement, contact, or disruption and become ready again.

And that brings us to perhaps the simplest way to understand the entire Force Control system.

|| The Movement Decision Tree ||

Every tennis movement is different.

A wide defensive forehand doesn't look like a serve.

A return doesn't look like a volley.

A drop-shot recovery doesn't look like a baseline rally.

Yet underneath those movements, the body is solving remarkably similar problems.

Establish your base.

Organize your center.

Absorb incoming force.

Redirect in opposite direction.

Recover to do it again.

Then repeat.

And repeat.

And repeat.

That's tennis.

This is why I no longer think of the Five Pillars as five isolated athletic qualities.

They're a movement decision tree.

When one part of the sequence breaks down, everything that follows becomes harder.

A poor base compromises organization.

Poor organization makes force harder to absorb.

Poor absorption makes redirection inefficient.

Poor redirection makes recovery slower.

Then the next ball arrives.

And suddenly the player looks late.

The temptation is to fix the stroke.

But the leak may have started three movements earlier.

|| Stop Chasing Speed ||

Junior tennis loves speed.

Parents notice fast players.

Coaches notice fast players.

Players want to become faster.

Speed absolutely matters.

But I've become increasingly interested in the other side of the equation:

Can you stop?

A player can be incredibly fast and still be an inefficient tennis mover.

I've seen players explode toward wide balls only to overrun them. They generate tremendous momentum, but they cannot absorb it efficiently. They need extra steps to stop, lose their balance, and struggle to change direction.

Then they're late recovering.

From the sideline, we say:

"He needs to get back faster."

Maybe.

But the problem might have started with how he arrived.

The ability to decelerate is one of the most overlooked athletic skills in tennis.

So is single-leg stability.

So is force absorption.

So is lateral loading and unloading.

We tend to celebrate the spectacular first step.

We rarely celebrate the controlled final step that allows the athlete to stop, hit, and go somewhere else.

But both matter.

The fastest player isn't always the player who can run the fastest.

Sometimes it's the player who wastes the least movement.

|| Find the Leak ||

This has become one of my favorite coaching questions.

When something breaks down, I try not to immediately ask:

What's wrong with the stroke?

Instead:

Where is the leak?

Consider a player who repeatedly hits forehands late.

The obvious diagnosis is a forehand timing problem.

But let's look underneath it.

Did the player recover late from the previous shot?

Was the first step inefficient?

Did the player arrive too upright?

Did momentum carry the player too far?

Was the player unable to establish a stable hitting position?

Did poor balance alter spacing?

Any one of those issues can eventually appear as a "bad forehand."

The stroke is the check-engine light.

Don't replace the light.

Find out what turned it on.

For players, this changes the question from:

"Why is my forehand so bad today?"

to:

"What is preventing me from getting organized for my forehand?"

For parents, it offers another way to watch a match.

Don't only watch whether the ball goes in.

Watch what happens before contact.

For coaches, it creates an entirely different diagnostic lens.

The visible problem is not always the real problem.

> *I never really thought about where my body was after I hit the ball. Once I started paying attention to balance and recovery, I realized how often I was putting myself in a bad position for the next shot.*
>
> — Force Control Program Participant Feedback

|| 8 Force Leaks Worth Watching ||

You don't need a biomechanics lab to begin seeing Force Control.

You can start by watching 8 areas.

1) **First Step**

   Does the player initiate movement efficiently, or hesitate and take unnecessary steps?

2) **Deceleration**

   Can the player stop under control, or does momentum continue carrying the body?

3) **Single-Leg Stability**

   Can the player control the body when loading, landing, or hitting from one leg?

4) **Posture and Spine**

   Does the player remain organized while moving, or collapse and lose posture?

5) **Lateral Load and Unload**

   Can the player move into the outside leg and efficiently push away from it?

6) **Rotation Timing**

   Can the player rotate while maintaining organization, or does rotation pull the body apart?

7) **Force Absorption**

   Can the athlete accept momentum without losing control?

8) **Recovery Speed**

How quickly does the player reorganize and become ready again?

These 8 factors became the foundation of what I call the **Force Control Index**, or FCI.

The FCI isn't designed to tell you whether you're a "good" or "bad" athlete.

It's designed to tell you where to look.

Because once you identify a leak, training becomes much more purposeful.

|| What Does This Look Like During a Match? ||

Force Control isn't a laboratory concept.

It shows up everywhere in tennis.

Rallying: Win Between the Shots

Most players watch the ball during a rally.

I increasingly watch what happens between contacts.

How does the player stop?

How do they load?

What happens immediately after the shot?

Do they recover with purpose?

Great ralliers don't simply hit good balls.

They repeatedly create good conditions for hitting the next ball.

Rallies are often won between strokes.

Serving: Build From the Ground Up

The serve may be the clearest example of force transfer in tennis.

The ground supports the body. The legs contribute force. The body organizes and transfers energy upward through the kinetic chain.

Then comes something players often overlook:

The landing.

Can the server absorb the force they just created and organize for the next ball?

The serve isn't over at contact. The point has just started.

Returning: Organize Chaos

The return takes time away.

That makes organization even more important.

Great returners don't necessarily react faster than everyone else.

Often, they're simply organized sooner.

Their foundation is ready.

Their center is controlled.

Their split step prepares them to produce force in either direction.

The return isn't just about reacting. It's about preparing to react.

At the Net: Stability in Motion

Volleying is often described as a hand skill.

But watch the body.

Can the player remain stable while moving forward?

Can they absorb incoming pace?

Can they change direction?

Can they recover for the next volley?

The best volleyers don't stop moving.

They learn to stay stable while moving.

Passing and Lobbing: Manage the Pressure

When an opponent closes the net, players often panic and try to create more force.

Sometimes the better solution is to use the force that's already there.

Absorb.

Redirect.

Stay balanced.

Let the opponent's pace work for you.

You don't always need more force. Sometimes you need better control of it.

|| You Probably Don't Need Another Footwork Drill ||

That statement may sound strange coming from a movement coach.

But I mean it.

Players don't necessarily need more drills.

They need to understand *why* they're doing them.

A ladder drill isn't automatically tennis training.

Neither is jumping over hurdles.

Neither is using resistance.

Neither is sprinting.

The equipment isn't the training.

The purpose is the training.

In the first Force Control program I ran with junior players, we used tools such as mini hurdles, resistance, battle ropes, medicine balls, and a Gravity Belt.

But the goal was never simply to make the athletes tired.

We were trying to teach them to feel something.

Can you land and hold your center?

Can you absorb resistance without losing posture?

Can you load the outside leg?

Can you redirect?

Can you recover?

Can you maintain organization when the task becomes difficult?

One observation from the program captured the need well:

"It's a good footwork program that they don't practice enough."

Another described the emphasis even more simply:

"It's all about movement, it's about balance and footwork."

The drills matter.

But the awareness they create matters more.

A drill becomes valuable when the player understands what it's teaching.

> *At the beginning I had to think about staying balanced and controlling my body. After a few weeks, I didn't have to think about it as much. I could just feel the difference.*
>
> — Force Control Program Participant Feedback

|| Simple Can Be Difficult ||

One of the most interesting things I've observed during Force Control training is how quickly simple exercises expose weaknesses.

Ask an athlete to sprint?

No problem.

Ask the same athlete to move laterally, land on one leg, control their center, and hold the position?

Now things get interesting.

That's because athleticism can sometimes hide inefficiency.

Speed can hide poor balance.

Strength can hide poor stability.

Effort can hide poor movement.

Until the task removes those escape routes.

Players in our program often found that movements that looked simple were surprisingly challenging at first. Over time, those same movements became easier as their control improved.

That's an important distinction.

We weren't just trying to make them stronger.

We were trying to make them more aware and more organized.

And eventually, what felt difficult began to feel natural.

That's development.

|| Pressure Doesn’t Create Leaks. It Reveals Them. ||

Have you ever watched a player look fantastic in practice and completely different during a match?

Most of us have.

We usually describe the difference as mental.

Nerves.

Confidence.

Pressure.

Those absolutely matter.

But pressure also exposes physical weaknesses.

The player starts rushing.

Posture changes.

Balance deteriorates.

Recovery slows.

Extra steps appear.

The stroke breaks down.

Pressure didn't necessarily create those problems.

It amplified them.

Think about a bridge with a small structural weakness. Under normal conditions, you may never notice it. Add enough load and the weakness becomes visible.

Competition does something similar.

Pressure doesn't create leaks. It reveals them.

This is one reason Force Control matters beyond movement training.

The stronger and more repeatable an athlete's movement system becomes, the more likely that system is to survive when the match becomes difficult.

|| A Different Way for Parents to Watch Tennis ||

Parents spend a lot of time watching results.

Did the ball go in?

Did she win the point?

Why did he miss that forehand?

Those are natural questions.

But Force Control gives parents another lens.

Next time you watch your player, forget the ball for a few points.

Watch the body.

When your player is pulled wide, do they arrive under control?

After contact, how quickly do they recover?

When they change direction, are there extra steps?

When they miss, were they balanced?

When the match gets tight, does their posture change?

Do they begin rushing?

You don't need to coach from the sidelines.

In fact, please don't.

Just observe.

You may begin noticing that the error you thought was a forehand problem actually began with the movement before it.

Once you see tennis this way, it's difficult to unsee it.

|| A Different Question for Coaches ||

Coaches have spent generations learning how to identify technical errors.

We should.

Technique matters.

But I think we can add another question to our coaching process:

What happened before the technical error?

That one question can change a lesson.

A player sprays a forehand long.

Before changing the swing, look at the base.

Look at the center.

Look at the stopping pattern.

Look at spacing.

Look at recovery from the previous ball.

Sometimes the stroke needs fixing.

Sometimes it doesn't.

Force Before Form isn't anti-technique.

It's about sequencing the diagnosis correctly.

Don't fix the expression before you've examined the system producing it.

|| A Different Question for Players ||

Players can make this even simpler.

Instead of constantly asking:

"What am I doing wrong?"

Start asking:

"What do I feel?"

Do I feel balanced?

Do I feel rushed?

Do I feel planted?

Can I control my momentum?

Am I recovering immediately?

Do I feel organized when I hit?

Awareness is a skill.

The more accurately you can identify what your body is doing, the more effectively you can change it.

That's one reason Force Control training doesn't begin with perfection.

It begins with noticing.

|| Your First Force Control Challenge ||

The next time you're on a tennis court, don't try to fix everything.

Pick one thing.

During a rally, notice your recovery.

Or notice your balance after a wide ball.

Or pay attention to whether you can stop without extra steps.

If you're a coach, watch one player for five minutes without evaluating the stroke.

If you're a parent, watch your child's movement instead of the ball.

Ask:

Where is force leaking?

You may be surprised by what you see.

And once you identify the leak, you've taken the first step toward improving it.

|| Force Before Form ||

This isn't an argument against strokes.

It's not an argument against technique.

And it's certainly not an argument against great coaching.

It's an argument for looking deeper.

The forehand matters.

The backhand matters.

The serve matters.

But those strokes don't exist in isolation.

They're produced by a moving human body that is constantly interacting with the ground, managing momentum, absorbing force, creating force, changing direction, and preparing to do it again.

That's the system underneath the stroke.

And sometimes, that's where the real problem lives.

Most players spend years trying to control the ball.

The best players also learn to control themselves.

Establish your base.

Organize your center.

Absorb incoming force.

Redirect in opposite direction.

Recover to do it again.

That's Force Control.

That's Force Before Form.

And once you begin seeing tennis through that lens, you may never watch the game quite the same way again.

|| Continue Your Force Control Journey ||

This e-book is an introduction, not the finish line.

The complete Force Control system continues to evolve through on-court training, assessment, player feedback, and the development of the Force Control Index.

Additional resources can include:

- Force Control self-assessment
- Force Control Index
- Tennis-specific Force Control Combine
- Player worksheets
- Training exercises
- Coaching resources
- Force Control programs

- Updates on the forthcoming *Force Before Form* book

Visit tennisFix.net for the latest Force Control resources.

|| One Final Question ||

The next time a player misses a shot, resist the urge to immediately look at the racquet.

Look at the player.

What happened before the swing?

You might discover you've been trying to fix the wrong problem.

> *I've taken lessons and gone to plenty of practices, but I'd never trained movement like this before. It completely changed the way I think about moving on the court.*
>
> — Force Control Program Participant Feedback

[Click to Learn More About Tennis Movement and Force Control Training]

|| About Patrick Giammarco ||

Patrick is a tennis coach, movement specialist, and longtime student of player development who has spent years exploring what happens beneath the stroke.

As Head Boys Tennis Coach at Perrysburg High School, he works closely with competitive junior and high school players in match play, practice, movement training, and long-term development. His coaching background also includes certifications in tennis instruction, movement and footwork training, serve development, physical performance, and mental performance.

Over time, Patrick became increasingly interested in a question that traditional stroke instruction did not fully answer:

Why do some players with technically sound games still struggle to stay balanced, recover efficiently, and perform consistently under pressure?

That question led to the development of his Force Control approach to tennis movement.

Rather than viewing movement as footwork alone, Patrick focuses on how players establish a base, organize their bodies, control their center of mass, absorb and produce force, and recover for the next shot.

He has tested and refined these ideas through on-court coaching, player observation, and his Tennis Movement & Force Control Training™ program with competitive junior and high school athletes.

Patrick is also the creator of Tennis Fix™, where he shares ideas on coaching, player development, movement, mental performance, and the changing landscape of tennis instruction.

His upcoming book, *Force Before Form: The 5 Pillars of Force Control for Peak Tennis Performance*, expands on the ideas introduced in this e-book and explores a different way to understand how players move, compete, and perform.

Patrick's goal is simple…

Help players and coaches stop looking only at the stroke and start understanding the system underneath it.