

The Scientific Benefits of Play



THE PLAYBOOKS

Growing up is hard. It's no mistake that as you get older, you can find it harder and harder to take the time to play. Whether you believe that play is an essential part of life for you or not, there's no mistaking by anyone the power that a good laugh can have in your life.

Have you ever had one of those days where everything seems to be going wrong, and then something happens that causes you to stop and see the humor in it? You end up busting out in laughter, and instantly every worry and stressor that you've had that day seems to melt away?

The joy that comes from that laughter is something that instantly increases your mood, brings energy, and leaves you feeling recharged. You may even experience that when you return to something that you used to love doing but haven't done since you were a child. That feeling like time stops, and you're just in the zone, feeling more connected with yourself than you have in a long time. Like you have all the energy in the world no matter how tired you normally feel.

That feeling... is what comes when you find the play in your life. Finding the play and being playful have some incredible scientific benefits to your life, and it's something that's never too late to start doing right away. As we get older, we forget what it's like to experience that child-like wonderment and joy. When you were a kid, it was easy to just get out and play and laugh with your friends, but then life gets real and serious. Between having to pay rent, buy a car, work your job, and pay for school, there's no time left for play anymore. Yet, when you make the time to bring play back into your life it can create powerful coping mechanisms, self-therapy tools, and more.



When you talk to many people, they feel that they have to be so committed to their work that they can never make time for play. We can get lost in the carousel of living paycheck to paycheck and staying on top of all of our adult responsibilities. We can also get sucked into focusing on achieving at the highest levels throughout every aspect of your life and measuring ourselves via those achievements.

But what happens when you don't succeed or have setbacks? For many people, they end up getting completely derailed. They get stuck. Recovering has become something that feels almost impossible for many people no matter how old, experienced, or successful they may be.

You may not believe that play can be a game changer in your life, but the truth is that it can be. There are many scientific benefits to incorporating play that extend to all areas of your life. Whether it's helping you discover new and fun ways to learn things or helping you create and develop a playful mindset that allows you to look at your life in new, more exciting ways.

We're going to dive into it all within the pages of this eBook and once and for all debunk the notion that play has no benefit. Are you ready?!

What do we mean by play?



According to the Oxford Dictionary, play is defined as engaging in activity for enjoyment and recreation rather than a serious or practical purpose. Yet, we're talking about something far more profound than that. So, while, yes, it's essential to find the play and enjoy your life as much as you can, and there's something to be said about developing a playful mindset and what that opens up for your life, it doesn't mean that all play has no purpose.

For the purposes of this eBook, when we're talking about play, it's referring to engaging in an activity for enjoyment with both practical and recreational purposes. In a learning situation, focusing on playful activities can help you discover new ways to learn as well as find new things that you're passionate about.

Play in a learning environment can help you understand more about who you are while you're trying to discover your own voice, passions, and wants for your life.

There are a few distinctions about the scientific benefits of play that we want to focus on as we dive further into this eBook:

- **Neuroplasticity**
- **Impact on Homeostasis**
- **How play can help you gather conclusions**
- **How play helps you learn boundaries and rules**
- **Exploration**
- **Personal Identity**

Let's start with the first one on this list.

Play is the Portal to Neuroplasticity

Before we get into play and its impact on neuroplasticity, let's define exactly what neuroplasticity is. Neuroplasticity can be viewed as a general umbrella term that refers to the brain's ability to modify, change, and adapt both structure and function throughout life and in response to experience.

This is talking about the fact that play can help us learn new things in our lives. By participating in activities, we can understand the rules for every stage in our lives. As you learn and grow and participate in play, it allows the brain to modify, change, and adapt to the structures around school, life, work, and interpersonal relationships.

If you're being playful with someone and it pushes their boundaries, they're going to tell you, aren't they? And then, instantly at that moment, your brain absorbs that information and stores it away as a boundary—a rule about that experience with that person that you don't want to cross over again.

Play teaches you how to relate to others. If you grew up playing sports, you were learning the rules of your age by doing so. During this time, you learned how to interact with your peers, coaches, good sportsmanship, and everything between.

And then, as you grew up and continued playing other sports, joined the chorus and/or other different types of extracurricular activities, you learned a whole new set of rules for existing and operating within those experiences. This continues on for the rest of your life. This is what we mean when we say that play is the portal to neuroplasticity.

If you want to learn how to get better at your job or build better relationships, take it back to play. You need to do the activities, practices, and tools that naturally promote learning. Everyone learns differently, and play helps you discover the best way to learn.

Play is a really powerful tool for living and one that you can utilize to unlock your full potential at every stage in your life. Play opens up your mind to the imagination and therefore, infinite possibilities. The more you incorporate play into your daily routine, the more you will find that you want to experience new things and discover more.

This thirst for discovery can actually help rewire your brain to seek that out all the time. And the more that you seek out new experiences and learning, you end up rewiring your brain naturally. When doing this at a young age, there's a thirst for adventure and soaking up knowledge and experience that occurs.

Neuroplasticity that occurs through play is like tapping into the fountain of youth. You want to seek out the feeling that comes with it while also developing deep bonds and connections with who you are, the things you want, and living passionately

Homeostatic Regulation of Play

One of the most surprising things about play is that it is homeostatically regulated. But wait, what is that?

Homeostasis is your body's ability to maintain stability or equilibrium through various behavioral processes. And what does this even remotely have to do with play? Well, if homeostasis is broken down to its simplest definition, it's just how your body and biological systems attempt to remain in balance at all times. Everything is the opposite. For example, if you don't eat for a day, you wake up starving.

And if everything comes in opposites and there's a balance to it all, then that automatically puts play to a whole new level of function. Play—or finding the play—connects your brain to many different parts of yourself, your mental state, and, frankly, your evolution. When you focus on play as part of your learning and life experiences, you'll discover that your brain produces certain chemicals when you're doing it.

One essential part of your brain is called the PAG, or the periaqueductal gray. This area is found in your brain stem and it's filled with millions of neurons that work to create endogenous opioids.... Those are basically the feelings that you feel when you're experiencing joy. Or what some people might call a natural high.

No, they're not the dangerous opioids that are wreaking havoc on many parts of the country. They are the ones naturally found in your body. And when you bring more play into your life, what happens is that play actually causes your PAG to release small amounts of these opioids into your system.

You literally get high when you play. It's a safe, natural high. And many people may not know just how vital of a state this "high" actually is. When your body has an abundance of these endogenous opioids released into the brain, they actually create the ability for other areas of your brain, like your prefrontal Cortex, to kick into gear. Why's that important? Because your prefrontal Cortex is responsible for what's called executive function.

The more you activate your prefrontal Cortex, the more quickly you're able to make predictions and assess contingencies. So, basically, it's the "if I do this, then this happens" decision-making process that can save you from bad situations or choices before you make them.

It's like being sure that the boss that protects you in your brain is always alert and paying attention. When you're playing and your periaqueductal gray releases these critical endogenous opioids, your prefrontal Cortex actually gets smarter. You'll start to naturally develop the ability to take on different roles in your life, work, school, and relationships and explore different outcomes.

These endogenous opioids actually open your mind to all the possibilities you wouldn't otherwise be present to if you weren't "doped up." As a result, you're more willing to explore and change the way you interact with your environments. It allows you to tap into more of who you are and the things you want to discover about life.

How we use play to gather conclusions



When it comes to play, it plays a critical role in the way in which we gather conclusions about the people we love and the world around us. Our society has led us to believe that if we're always playing, we will never take anything seriously. But there's incredible power in finding the play in your life.

One of the most significant is to be able to discover new things in low stake scenarios, where there are minimal consequences. No, this doesn't mean going to steal stop signs because it's fun. Instead, what we're talking about is what's called low-stakes play.

What is low-stakes play?

Low-stakes play is where we're taking part in playful activities that allow us to try out new things and gather conclusions about our world and current place in our lives without having to be worried about significant consequences.

This is the kind of thing where you're learning boundaries that your partner doesn't want you to cross, even if you are being playful. Or that you can get hurt when you throw the kickball as hard as you can and bounce it back to you and decide not to catch it just to see what happens. You can learn about your world and how you fit within it through low-stakes play.

The state of mind that you're in when you're enjoying low-stakes play allows you the ability to engage in novel types of behaviors and interactions that you wouldn't normally do if you're always focused on the outcome. It allows you to explore different ways of being and expand yourself.

When you're looking to expand your horizons, encouraging things like low stakes play creates a space where you can be focused on an activity, this can be things like learning activities, and in doing so, it naturally releases those opioids in your brain. And it's this type of play that essentially unleashes these opioids in your brain.

What about contingency testing?

Play is naturally designed to be a sort of contingency testing, done under conditions where the stakes, or consequences, are low. This creates a space where you can feel comfortable playing different roles, even roles that you may be completely uncomfortable playing in your everyday life. Think of using your imagination. That's exactly what this type of situation with play is like. You're role-playing, opening up yourself to new possibilities that you wouldn't otherwise feel comfortable doing.

Contingency testing allows you to explore different outcomes in a kind of low-stakes environment. So how does it work? Well, not to get too scientific, but we're going to look at the science a little closer for a moment.

At the biological level, your prefrontal Cortex starts to entertain different possibilities and different outcomes in this low stakes play type of situation. And when you stop to think about it, you normally wouldn't let yourself go there, right? These types of new experiences can range anywhere from listening to new kinds of music or bands to going to see new art shows or movies. Any new experience is a chance to open yourself up to possibilities to discover.

With contingency testing, you're naturally becoming more willing to put yourself into situations where you don't understand all the rules. Or even a situation where you're doing something that you're not super proficient at, but you step into it because there are low stakes. And then this is where neuroplasticity comes back into play—pun completely intended!

You're learning new information about yourself in these low-risk situations, which you then adapt into your way of being and operating. As a result, you're creating elasticity in your approach to the way you live your life.

However, something to keep in mind is that there are very few opportunities in life to explore contingencies in this low-stakes kind of way. Most of the things we do in our lives come with consequences. If we do this, that happens. If I risk this, then I lose this. But when you focus on finding the play, you can create opportunities to rewire your brain to learn and grow naturally.

How does playing help transform your mindset?



As you focus on play, you'll quickly discover just how much of an impact that way of being has on your overall mindset. Whether you struggle with negative self-talk, insecurities, limiting beliefs, or any other type of inner dialogue that's designed to tear you down or not, a playful mindset is powerful.

It's actually one of the most powerful tools you can use to live a fulfilling life. How you play allows you to develop a mindset of exploration around trying new things. So when you're living that kind of lifestyle, you can probably see just how much that approach to your life opens up doors in every other area of your life.

You'll naturally become more open to possibilities where others see roadblocks. This can create an unstoppable way of living. You don't get stopped by failure. Instead, you see it for the lesson, take away what you can learn from it, and try again.

A playful mindset creates a space where you're living life like it's a game. No, not a game like you take nothing seriously. But what we're talking about is a game that never ends. Nothing that happens to derail you actually derails you. It may take you out of the game for a little, but you get back up, serve the ball and keep playing. So you can bring a playful mindset to all areas of your life and start seeing its benefits quite quickly.

Okay, Let's take a closer look at exactly how play can help you learn the rules, set better boundaries, and discover who you really are and what you want to do with your life.

Play: Why it's critical



As you can see already from this eBook, play is critical to living a healthy life. It's what children do all the time in school and throughout their education. Remember recess? It's how you learned about the world, who you were in it, and about everyone around you as you grew up. It's as healthy and essential as eating vegetables, reading, and getting a good night's sleep.

There's no wrong or right when it comes to play. It can be things like sticking your hand in mashed potatoes or playing video games when you were young. Every person sees play differently, and the impact it has on them differs just the same.



Some people enjoy playing with friends, and other times, they find it more enjoyable on their own.



Some people may speak out loud, and other times, be silent and play.



Some people like messy or risky play, and other times they prefer quiet and relaxed.

There are no fancy toys or certificates to play. You just need the freedom, time, and space to explore the things you love and discover what those lessons play brings into your life. Here are some of the most essential benefits of play and how they impact your life.

We're all never too old to play and enjoy the benefits of it.



Play Builds Imagination and Creativity



While playing, you're able to stretch your imagination. You create make-believe games or get lost in pretend worlds where you can be whoever you want with no limitations on what could happen next! As a child, you learn how important it is that there must always be rules set in place. And the best part is when you're expanding your imagination, you start to see the joy in making up your own rules as you go and flying by the seat of your pants! Play teaches life lessons about flexibility, just like one would do while exploring new territory during an adventure.

Healthy development begins with symbolic play. Imagination is a vital skill that not only helps you build necessary skills needed in future learning but also improves creativity which has been shown time after time to contribute significantly towards success throughout your lifetime.

Play Fosters Cognitive Growth

What does fostering cognitive growth mean? First, it means that play is essential to healthy brain development.

The time when you're allowed to be a kid and do what you wanted growing up was called unstructured play. It's during that time that your brain develops in positive ways by strengthening neural connections for thinking, which become more critical as you grow up.

The prefrontal cortex is a crucial player in how we learn and solve problems. It also helps us understand our environment, which makes unstructured play an essential part of your life no matter how old you are.



Play Has Emotional Benefits

We all have moments when we feel overwhelmed. That's why it can be so helpful to find ways to bring play back into our lives and connect us with the things in life that help ground you, like your friends, family, or pets. When adults retreat into activities that soothe them, such as going out for drinks after work, singing karaoke with close buddies until dawn, or an evening at home playing cards together—They are finding a way to bring play back into their lives and connecting them to the things in life that help ground them.

You don't just stop growing and changing when you become an adult. Yet, it's something that many adults forget about life. We're all constantly growing and changing, which can be really stressful! But with all this activity comes some awesome benefits; frequent daily routines help reduce anxiety, stress levels, or irritability while boosting your joy and self-esteem too.

The power of play can be seen in the way it teaches you how to navigate life's challenges. Play gives you a safe space where you are able to explore new ideas and learn valuable lessons about working together as part of something bigger than yourself, all while experiencing joy.

Play Improves Literacy

Play Improves Literacy



Infants and toddlers are born with a natural gift for learning language. They build new literacy skills through play-based activities, where they listen to adults read books or describe what's happening around them in everyday life. These interactions help kids learn how syllables should sound together so that when it comes time to learn to read, there won't be any trouble figuring out which letters make up certain words because those sounds will already resonate within your child's mind.

The same is true for you as an adult. There's no greater teacher than play because it helps you learn about communication as well as practice back and forth conversation. In addition, through storytelling in books or orally, you get an opportunity to understand who you are by understanding the narrative structure.

Play Encourages Independence

In the world of play, children have a chance to be in charge and make rules. For example, they can choose who is a leader or whether everyone should work together as equals. Being told what to do all day long is frustrating for any kid, but it's even more difficult when you're not able to stand up for yourself because you don't know how.

Independent play is just as crucial to the development of your independence as an adult. It helps you build your own sense of self, which can be used when socializing with others in group settings later on down the line. Playing alone also gives you opportunities for creativity that you might not get otherwise by being constantly around people all day long at home or work. This also helps learn new skills such as problem-solving, which is something many people never quite master until at a much later age.



Play Encourages Independence

Play Promotes Fitness



Your body is hard-wired for physical activity. When you exercise regularly, your endorphins flow and you naturally find more energy even after a hard workout.

No matter how old you are, getting outside to play, or exercise has many benefits, including:

- Sharpen reflexes.
- Work on movement control.
- Improve gross motor skills.
- Develop greater balance.
- Build strong muscles.
- Improve bone density.
- Increase cardio-vascular function.

Play for Life

The benefits of play are endless, not just for children but also for adults. Play helps build strong relationships with others, builds confidence in yourself, and more.

In times of stress, it's an easy way to boost your mood. So instead of using cutlery during dinner tonight, try eating with fingers (or popsicle sticks, straws, toothpicks) and see how you like the new experience!

There's no doubt that if we all did this together, then most people would find something they were comfortable doing at home rather than being out in public where everyone else has their own opinions about what's right and wrong or unacceptable and acceptable.



What About Personal Play Identity?

Gökhan Güneş coined the term personal play identity. Personal play identity basically means who we see ourselves as being, not just in the context of play. There are five components to personal play: identity, how you play, your personality, socio-culture, and environment. What we mean with personal play identity is that you're bringing together certain aspects of yourself and how you react to different scenarios when you're younger, and using them as your foundation of identity going into adulthood.

This is why it is so critical to bring play back into your life in any way you can. It keeps you growing and evolving. So, as you can see, encouraging more play can actually lead to...



Transforming Your Future Self

By learning to interact with the world differently, you will be able to build a stronger sense of self for your future, because play allows you to discover new parts of yourself without consequences.

It's in this space that our personal play identity is born. The WAY in which we play is just as critical as HOW we play. Who we are when we play has a significant impact on the person we become. Are you more free and unfiltered when you're playing than when you're living your day-to-day life? Many people are. Play encourages us to let go of our inhibitions and just be without self-judgment or overthinking.



Recommendations for Play

You'll notice that we largely avoided using the word fun throughout this eBook. Why is that? Because fun is a pretty abstract term that refers to emotion rather than a state of being. And just like many other emotions and verbal descriptions of experiences, it doesn't quite capture what play is really about and the scientific benefits of play.

If you have fun, great! However, some of you may find that engaging in play is kind of uncomfortable, which also means that it's not really fun at all in the first place. You're out of your comfort zone, and so you're operating from a place that leaves you feeling vulnerable. That's not fun.

What you want to be doing is finding ways to lower your level of discomfort by focusing less on the outcomes in a given situation and instead just engaging in the behavior. Why? Because it's good for you, but ideally, it will also give you an opportunity to experience something new about yourself.

We're naturally built for play. Even if biology and evolution have caused us to focus more on achievements and success. We're so laser-focused that we forget to play and discover new things because we're too worried about what others will think or how it will impact our lives or even what consequences come with it.

But the truth is play is ingrained in the science of our bodies. We have brain circuits from back to front and within our body that are there for play, and they don't go away no matter how dormant we've let them become.

Your playful instincts don't get locked away as you move from adolescents to adulthood. Play is essential throughout your entire lifespan because, after all, biology doesn't waste resources. And your brain is literally wired to release chemicals that leave you feeling "high" when you are playing. Its biology does not waste resources. It's extremely efficient.

And remember that if we weren't meant to play as adults, our brains would be naturally wired differently. Play is a part of your form now until forever, and it's critical to your mental health, stress, and overall well-being to tap into your play as much as you can

