

# Spring is here! It's time for your Natural Playground Maintenance

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Natural Playground maintenance is easy and costs no more than you're now spending on your old playground. The three biggies? Managing Grass, Maintaining Fall Zone Levels, Preserving Wood.

## Managing Grass

The major reason grass dies on playgrounds is because of compaction! We cannot emphasize this enough. We discuss this in detail because we'd like you to completely understand what is going on so you can take the appropriate steps to avoid or address compaction issues before all of your grass dies.

**Compaction is a killer because it squeezes all of the air out of the soil, which then suffocates the roots so the grass dies.**

Even if moisture in the soil is optimal, overuse will quickly compact the soil, squeeze all the air out of it, and kill the grass.

If the soil is moist or wet from irrigation, rain, or snow melt, and children are allowed on it, two things are happening:

- the grass is working hard to survive because it may be starting to suffocate from too much water, and
- the children running all over it are packing/compacting the wet soil.

Remember how clay bricks are made? You wet down the clay soil, pack it into a brick form which squeezes all the air out of it, and then you let it dry, and when it dries, it's as "hard as a brick." This is exactly what happens to your soil, which is why your grass dies.

There are definitely other issues that can affect grass like grubs, too much shade, lack of water and nutrients, and pest infestation, but on playgrounds, *compaction is the killer*.

The grass needs to be left alone after a heavy melt, rain, watering, or particularly dewy morning until it has absorbed and dispersed most of that moisture. In our part of the country here in the Northeast, the spring after grass is installed is a very sensitive time. It can stay saturated for a couple weeks or more while the snow and ice melt dissipates, and if children are allowed on it during this time, all of the above compaction issues are exacerbated. Rainy seasons are the other ones to watch out for.

Grass roots can grow 6" or more but that takes time, but if they are allowed to reach that optimal length, it gives them a much better chance for surviving abuse from overwatering, under watering, and compaction. In most cases, it's *at least one full season*.

After a season and the roots are long enough, even when it's wet, the compaction zone should be shallow enough that the roots extend below it and won't get choked off. It's why an old lawn is hard as cement (completely compacted) but the grass is nearly bullet proof. The roots extend below that "cement layer" and provide the necessary nutrients to keep the leaves vibrant and strong.

Regardless, compaction must be a concern throughout the year. There are many techniques for addressing it, the two most common of which are coring and spiking performed four times a year (except where grass foundations have been installed - see below), or more often if the play area is under constant, heavy use.

At the same time, the grass should be fertilized and over-seeded.

After it's been aerated, make sure that no child has access to any grassed area when it's wet and if at all possible give it a few weeks to recover.

We realize that instituting this kind of control on a very active, crowded playground is very difficult, and takes careful planning. We suggest that you mark out use zones on the playground so that you can rotate children through them based on the maintenance going on in them. Depending on the area/s undergoing maintenance, it can be marked off with caution tape for whatever period of time is appropriate for the maintenance.

Another very simple technique is to change access routes using cones or tape so that children are invited to access the playground from different points on different days throughout the week.

Lastly, don't mow it ever, but if that's not possible, **mow it tall**, absolutely no less than 3 inches. The longer the blade, the more water and nutrients it absorbs, the longer its roots, the healthier it gets, and everything is copacetic!

### Maintaining Fall Zone Levels

This is a simple one. The following chart is from The Consumer Product Safety Council (CPSC) Handbook for Playground Safety.

Bring a ruler with you, look at the material in each of your fall zone areas, and make sure that they are at the minimum depth required for the "fall height." 9" is a safe depth for all materials, though we usually use 12".

Woodchips and engineered wood fibers (EWF) have a tendency to rot, and when they do, they turn into "soil" which can compact and no longer offer the soft landing surface required.

If that's the case with one of your fall zones, you can cover it with new material if you have the vertical room, or you may have to dig it out and replace it with new material.

Inches	Of	(Loose-Fill Material)	Protects to	Fall Height (feet)
6*		Shredded/recycled rubber		10
9		Sand		4
9		Pea Gravel		5
9		Wood mulch (non-CCA)		7
9		Wood chips		10

\* Shredded/recycled rubber loose-fill surfacing does not compress in the same manner as other loose-fill materials. However, care should be taken to maintain a constant depth as displacement may still occur.

The other issue with any loose material (wood chips, EWF, sand, peastone) is that it migrates out of the area. In some cases, you might be able to rake it back in (if you can keep it clean), or you may have to add more.

### **Preserving Wood**

Most woods do not last long once exposed to the elements (that's why houses are painted or stained), and especially not when they are in contact with the ground, or moisture from rain and irrigation. So whenever we think it will look or feel better, we use cedar (because the wood contains natural preservatives that resist decay to some degree), but cedar is expensive, so the other times we opt for fir, spruce, or pine that has been treated with a child-friendly preservative.

However, regardless of the wood used, and regardless of whether it's been treated, it will still show signs of weathering, and over time wood will start to show signs. Cracking and checking are normal and not harmful, but when wood looks really dry, and begins to splinter, that's when kids start getting hurt.

But there's a very simple way to take care of this. Wood preservatives are just that: they help preserve the natural features of wood that make it so attractive to begin with, so we treat our products that use dimensioned lumber with a sealer before they go out the door. However, sealers dissipate over time -- which is where you come in.

At least twice a year (more often depending on how severe your climate is) you will need to re-treat all the wood products on your Natural Playground. Of the non-toxic, kid-friendly products available to consumers, the one we find the easiest to use at an affordable price is Thompson's WaterSeal Advanced (water based) available through our store here: [www.naturalplaygroundsstore.com/template.php?query=Maintenance](http://www.naturalplaygroundsstore.com/template.php?query=Maintenance))

Thompson's WaterSeal (or similar) may be poured into an inexpensive garden sprayer to make your job easy. Pump up the sprayer, and walk around the Natural Playground spraying anything made out of dimensioned lumber - on all sides. The sprayer will make it easier to reach hard-to-get-at-places. Even though it's non-toxic, you should let it dry before allowing children to touch it.

If you're in an extreme heat/dry climate, this should be done at least 4 times a year, preferably more!!

The efforts required above may seem cumbersome, but if you make them routine, the benefits of such a maintenance program far outweighs the costs!

Also, if you want to compare this to the maintenance required on equipment, there just isn't any comparison!

For one thing, the fall zones are smaller on natural playgrounds, so topping off or replacing fall zone material is far less expensive.

Secondly, most playground equipment has a life span of only 15 years, so if you spend \$50,000 on equipment this year, you'll spend \$50,000 replacing it every 15 years. If you amortize the cost of replacing equipment, each year you're spending \$3,300, which is less than you'd spend on the yearly routine maintenance program for your natural playground!

**Order Preservation Solution's Log & Beam Treatment for protecting your wood from our store here! Put it into an inexpensive garden sprayer, and spray away!**