Surfaces http://kidshealth.org/parent/firstaid_safe/outdoor/playground.html#a_Surfaces

A proper playground surface is one of the most important factors in reducing injuries — and the severity of injuries — that occur when kids fall from equipment. The surface under the playground equipment should be soft enough and thick enough to soften the impact of a child's fall.

Here are some things to consider:

- Concrete, asphalt, and blacktop are unsafe and unacceptable. Grass, soil, and packed-earth surfaces are also unsafe because weather and wear can reduce their capacities to cushion a child's fall.
- The playground surface should be free of standing water and debris that could cause kids to trip and fall, such as rocks, tree stumps, and tree roots.
- There should be no dangerous materials, like broken glass or twisted metal.
- The surfaces may be loosely filled with materials like wood chips, mulch, sand, pea gravel, or shredded rubber.
- Surfacing mats made of safety-tested rubber or rubber-like materials are also safe.
- Rubber mats and wood chips allow the best access for people in wheelchairs.
- Loose-fill surface materials 12 inches deep should be used for equipment up to 8 feet high. The material should not be packed down because this will reduce any cushioning effect.
- No surfacing materials are considered safe if the combined height of playground and the child (standing on the highest platform) is higher than 12 feet.
- The cushioned surface should extend at least 6 feet past the equipment. Additional coverage may be needed, depending on how high a slide is or how long a swing is.
- If there is loose-fill over a hard surface (like asphalt or concrete), there should be 3-6 inches of loose-fill like gravel, a layer of geotextile cloth, a layer of loose-fill surfacing material, and then impact mats under the playground equipment.

Keep in mind that even proper surfacing can't prevent all injuries. Also, the greater the height of the equipment, the more likely kids are to get injured if they fall from it.