LIABILITY FOR OPEN S-HOOK ON PLAYGROUND SWING

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The *Public Playground Safety Handbook* issued by the U.S. Consumer Product Safety Commission (2008) provides a recommended guideline that "[a]ll hooks, such as S-hooks and C-hooks, should be closed." As described in the CPSC Handbook, "S-hooks are often part of a swing's suspension system, either attaching the suspending elements to the overhead support bar or to the swing seat." In directing that "S hooks should be pinched closed," the CPSC Handbook notes that "[a]n S-hook is considered closed if there is no gap or space greater than 0.04 inches (about the thickness of a dime)."

In the case of *Wright v. City of Lebanon* (Tenn.App. 3/1/2011), the issue before the state appeals court was whether sufficient evidence existed on the record to support the trial court's determination that a swing in a city park "was in a dangerous or defective condition" due to an open S-hook. The facts of the case were as follows:

> On Saturday, April 15, 2006, fourteen-year-old Charles Justin Wright attended a birthday party at Don Fox Park in Lebanon, Tennessee, with his mother, stepfather, sister, and cousin. The park is owned and maintained by the City of Lebanon. Wright was injured while swinging on the swings at the park. The plaintiff claims that a hook attaching the seat of the swing to the chain came loose as he was swinging, and as a result, he fell and broke his ankle.
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> Wright's stepfather, Bedford Allison, testified that he inspected the swing shortly after the accident while he was waiting with Wright for his mother to come over. He stated that "the S-hook at the bottom of the swing [chain] appeared to be stretched out." Thus, he could "only assume the chain came out of the s-hook." Allison testified that the S-hook was stretched out as wide as his pinky, which he estimated to be one-quarter to one-half inch. Allison stated that, in his job as a commercial driver, he had occasion to work with chains and S-hooks "every day for the last 12 years." He also had experience with them working in construction and growing up on a farm.
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> Sandra Lascher Zires was the only disinterested party present at the time of the accident. She was pushing her daughter on the same swing set on which Wright and his cousin were swinging when Wright fell. Zires testified that the boys were swinging in a normal manner and that Wright was swinging at a "medium" height. Zires testified that, when she looked up after the accident, the seat of the swing was hanging down... At some point, she inspected the swing. When asked what her impression was of what had gone wrong with the swing, Zires testified, "Well, I kind of expected a chain to be broken, but there wasn't. It was just an S-hook, I'm guessing, came off. I don't know. It didn't appear to be broken."

Plaintiff Wright through his mother brought suit against the City pursuant to the state torts claims act (Tennessee Governmental Tort Liability Act, Tenn. Code Ann. § 29- 20-101 et seq.)

Wright's complaint alleged that "the condition of the swing created a dangerous or defective condition, the City had constructive and/or actual notice of the dangerous or defective condition." In so doing, Wright claimed "the City was negligent in failing to maintain and/or properly repair the swing." Specifically, Wright contended that "the City had a duty to conduct reasonable and customary inspections of the swing and failed to do so."

In response, the City denied any liability, arguing Wright had "failed to demonstrate that the City created a dangerous condition that was the cause of his injury or that the City had notice of a dangerous condition" as required by the state tort claims act.

The trial court found Wright had established the negligence of the City in failing to "ensure the safety of the swings." Accordingly, the trial court entered judgment in favor of Wright for $42,000, plus court costs as well as $9,137.92 in discretionary costs. The City appealed.

DANGEROUS OR DEFECTIVE CONDITION?

On appeal, the City claimed the trial court had failed to "determine whether the swing was in a dangerous or defective condition at the time of Wright's injury" as required by the state tort claims act. Moreover, the City also contended that "the trial court erred in failing to determine whether the City had constructive notice of a dangerous or defective condition at the time of Wright's injury."

As noted by the state appeals court, subject to statutory exceptions, "the Governmental Tort Liability Act generally offers immunity to governmental entities from suit for any injury which may result from the activities of such governmental entities." Tenn. Code Ann. § 29-20-201(a). As cited by the appeals court, one such exception to immunity under the state tort claims act existed "for any injury caused by the dangerous or defective condition of any public building, structure, dam, reservoir or other public improvement owned and controlled by such governmental entity." Tenn. Code Ann. § 29-20-204(a). Further, the appeals court acknowledged that "[i]mmunity is not removed" where the governmental entity did not have "constructive and/or actual notice" of the condition. Tenn. Code Ann. § 29-20- 204(b). As a result, to establish a claim under the state tort claims act, the appeals court found Wright had to prove that "there was both a dangerous or defective condition and that the City had notice of the condition."

The initial issue before the appeals court was, therefore, whether a "preponderance of the evidence" on the record would support a determination that the City should have known that "the swing was in a dangerous or defective condition."

As noted by the appeals court, the trial court had made the following findings of fact in reaching its judgment:

> The court stated that, based on a photograph of the swings taken after the accident, the "top S hook . . . is, greater than .04 inches or greater than one millimeter wide." The court again stated that "there are gaps here in this S hook." The court also noted that Robert Warren, the plaintiff's expert, offered "a

> plausible, believable explanation as to how this particular S hook could become disengaged."

In considering whether the swing was in a dangerous or defective condition, the appeals court cited evidence from the record that "[t]he City was in possession of a 'care packet' created by the manufacturer of the swings, Leathers & Associates, Inc." which provided as follows:

> The packet states that S-hook connectors are considered closed when there is no gap or space greater than .04 inches. Further, the packet states that "[i]f S-hooks open, they should be replaced, as reclosing S-hooks weakens them." As a semi-annual check, Leathers & Associates suggests checking to ensure that chains, S-hooks, and quick links are not worn more than one-third. The packet, however, notes that such frequencies "should not be taken as absolutes" and that there is "no substitute for professional judgment in determining inspection frequency." In a "Maintenance Update" from May 2000, Leathers & Associates states that chains, S-hooks, and quick links should be replaced "if wear is greater than 50%."

Similarly, in maintaining Don Fox Park, the appeals court noted that William Porter, the director of the Parks Department, had testified that "every member of his team knows how to close an open S-hook" and "[the City was in the habit of both closing and replacing open S-hooks":

> Porter testified that his team of five workers check the park every day. Porter stated that he and his crew inspect S-hooks, quick links, and chains on the swings daily. Porter specifically testified that the crew checks daily to ensure that the S-hooks are fully closed and that S-hooks and chains are not over 50% worn or rusted. Every member of the team knows how to fix these items. If there is a problem with a chain, S-hook, or quick link, the crew can fix it on the spot because they keep those items and the tools to fix them in their trucks.

Further, when questioned, Porter described "what exactly he looks for when inspecting a swing":

> I lift up where the swing attaches to either the S-hooks or the chain and generally take the two pieces of chain and, kind of, move them where you can see if there is worn—whether it's worn in there. I pull and jerk on the top, pull on the chains to make sure they are tight, not coming loose at the top. I look at the bolts and try to look and see if any of those look like they are loose or working their way off nuts or something. I feel about the edges of the seats.

Porter further stated "it was his practice to see if a chain could come out of an S-hook." Porter, however, admitted that he was "unaware of the exact .04 inch guideline for open S-hooks at the time of the accident." Based on "his crew's routine," Porter contended that "the particular swing that broke would have been checked on Friday, the day before the accident." Porter also testified about the maintenance records his team kept, but conceded "[t]he system for doing so was not formal and was not done consistently."

As described by the appeals court, "[d]ocuments in the record reflect that, at various times, the park team maintained two different types of records."

> One form, labeled "Park Responsibilities," consists of boxes to be checked each day of the week for various completed tasks, including one for 'playground safety check." Another form, labeled "Duty: Safety Check Playgrounds," consists of blank lines under the headings "time done," "initial," "date," and "comments." Examples of entries on this second form include "fixed tired swing S-hook," "tightened bolts on swings," "fixed ladder on red fire engine," "sprayed wasp nest," and "replaced swing in playground."

As characterized by the appeals court, "[n[one of these documents shed any light on the condition of the swings at the park around the time of the accident." While the director of the Parks Department had testified that "he and his crew of four check daily to ensure that S-hooks are fully closed and that S-hooks and chains are not over 50% worn or rusted," the appeals court, found "no documentation that reveals which swings were checked on particular days and in what manner they were checked." Further, the court noted that "[n]o one member of Porter's crew is assigned a specific area of Don Fox Park to inspect." In particular, the appeals court noted that Porter himself acknowledged that it was "impossible for park staff to catch every instance of broken equipment as soon as it occurred"

Given the "lack of a formal system of inspection or record-keeping," the appeals court concluded "it is understandable that some areas of the park could go overlooked at various times," citing the following testimony from director Porter:

> Porter stated, "If we're looking every day at swings and chains and for screws and cleaning up and picking up, we hope that if we missed it one day we'll catch it the next day." When asked what the crew does when they arrive at the park each day, Porter responded: "Rake the playground, blow off pavilions, pick up trash. Take five, and that way we can generally, if everybody takes a spot, if nothing is wrong and everything is good, we're in and out in 20 minutes and back up at the ball parks."

Further, based upon a review of other testimony on the record, the appeals court concluded that plaintiff Wright had established by a preponderance of the evidence that the swing was in a dangerous or defective condition.

> There is no evidence that the boys were using the swings inappropriately. The photographs taken the night of the accident show that the swing came undone at the place where the seat attaches to an S-hook. There was testimony from Allison that the S-hook at the bottom of the chain appeared to be stretched out. There was testimony from a disinterested observer that an S-hook came off the chain. The plaintiff's expert offered a reasonable explanation for how the seat could have become unhooked from an open S-hook.

EXPERT TESTIMONY

In finding a dangerous or defective condition, the appeals court noted the City's own expert had testified that, "while unlikely, it was possible for an open S-hook to cause a seat to come off." As described by the court, the City's expert witness, Scott Burton, was a "recreation safety consultant specializing in playground safety":

> [Burton] is a certified playground safety inspector through the National Recreation and Park Association, sits on subcommittees of the American Society for Testing and Materials, and once owned a company that designed and manufactured playground equipment for twelve years. At the time of trial, he owned a company that performed playground safety audits.

Burton testified that there is no national standard for when to tighten S-hooks as opposed to replace them. He stated that closing S-hooks for a third time might be acceptable, but beyond that, they should probably be replaced. He characterized the decision as one of professional judgment.

Burton testified that the City's inspections were reasonable and above the standard of care. In so doing, however, he stated that he typically recommends checking S-hooks monthly. Further, Burton acknowledged on cross examination: "[I]f it's [the gap] more than .04 inches, then if it's opened up an inch, then, yeah, you can pull the thing [the seat or chain] off. It's not a frequent thing that happens, though."

In response, the appeals court found plaintiff's expert witness, Robert Warren, had testified about "S-hooks wearing with age and opening as a result" based on "his knowledge of physics and metallurgy":

> Warren stated that repeated opening and closing of S-hooks increases fatigue and is more likely to cause a fracture. He therefore recommended replacement of S-hooks after they are tightened or closed for the second time. Warren noted that, for maintenance purposes, there should be a system of labeling individual swings to document the times the S-hooks are tightened. Warren stated that none of the City's methods rose to that level... Warren stated that he did not know whether an S-hook broke, was too far open, or whether it was a combination of the two...
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> He opined that it was more likely that the S-hook was open. He based this conclusion largely on Allison's testimony about the condition of the S-hook following the accident. He stated that, although he did not know how much wear existed at the time of the accident, there would not need to be much if the gap in the S-hook was as great as Allison indicated. He also testified that it was highly unlikely that an S-hook would break.

Warren, a structural engineer, admitted he had "limited experience in playground maintenance" and "unfamiliar with maintenance and safety protocol for playground equipment" prior to trial. As a result, the City claimed "Warren did not qualify as an expert to render testimony on whether

the swing was dangerous or defective" because "expert testimony was needed with respect to playground equipment and recreational safety." The appeals court rejected the City's position that "Warren's testimony should have been excluded because his education and training are not specific to playground equipment." In so doing, the appeals court concluded that "Warren possesses the education and experience that qualify him to render an expert opinion regarding the potential for S-hooks to open up over time and to cause an accident like the one that occurred in the present case."

> Warren is a licensed professional engineer with an area of practice predominantly in structural engineering. Warren offered particular expertise in the areas of physics and metallurgy, which was especially pertinent to an examination of the effect of time and wear on chains and S-hooks. Warren testified that he familiarized himself with maintenance, safety, and repair protocols in the specific context of playground equipment. He also stated that he has tested playground equipment to examine the metallic properties of a swing set...
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> Warren's testimony was arguably more instructive on the issue at hand—the opening of S-hooks and the physics of the swinging motion—than that of the City's expert, whose particular expertise was in designing and inspecting playground equipment. Furthermore, the City's expert also testified about the slow-opening nature of S-hooks, stating that he recommends checking them only monthly.

CONSTRUCTIVE NOTICE?

In addition to proving the swing was in a dangerous or defective condition, "for the City's immunity to be removed" under the state tort claims act, the appeals court acknowledged Wright "must also prove that the City had actual or constructive notice of the condition." Tenn. Code Ann. § 29-20-204(b). As defined by the court, "a governmental entity will be charged with constructive notice of a fact or information, if the fact or information could have been discovered by reasonable diligence and the governmental entity had a duty to exercise reasonable diligence to inquire into the matter." Further, in this particular context, the appeals court found "[p]roof that a governmental entity failed to adequately inspect property or improvements which it owned and controlled is directly relevant to the question of whether it had constructive notice of the dangerous or defective condition resulting in injury."

Based on the evidence presented, the appeals court found the City had the requisite "constructive notice of the condition" because "the defective condition of the swing that caused Wright's accident could have been discovered by reasonable diligence through thorough inspections":

> Constructive notice depends not on when an injury occurs but on when a governmental entity fails to exercise reasonable diligence. The fact that no accident occurred prior to Wright's accident does not mean the swing was not in a dangerous or defective condition at that time.

> Both experts testified that it would take just the right circumstances for an accident of this nature to occur. The swing could have been in a defective condition for days, weeks, or months. Warren testified that S-hooks do not open overnight, but rather, open slowly over a period of time. Burton stated that he typically recommends checking S-hooks only monthly. That means the park staff likely would have missed the open S-hook over a period of time, not just from Friday, when it was allegedly last checked, to Saturday, the day of the accident.
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> The park staff was well aware of this tendency of S-hooks to open up or wear over time. Each member of the crew knew how to close open S-hooks, and extra S-hooks were kept in the park trucks for easy replacement.

CONCLUSION

Having found sufficient evidence on the record to establish that the City should have known that the swing "was in a dangerous or defective condition" due to an open S-hook, the appeals court affirmed the judgment of the trial court in favor of plaintiff Wright.

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