

File Name: 05a0336p.06

UNITED STATES COURT OF APPEALS

FOR THE SIXTH CIRCUIT

DR. DAVID E. BARNES,

Plaintiff-Appellant/Cross-Appellee,

v.

THE KERR CORPORATION,

Defendant-Appellee/Cross-Appellant.

Nos. 04-5546/5663

Appeal from the United States District Court
for the Eastern District of Tennessee at Winchester.
No. 99-00079—Thomas W. Phillips, District Judge.

Argued: July 20, 2005

Decided and Filed: August 11, 2005

Before: CLAY, GILMAN, and COOK, Circuit Judges.

COUNSEL

ARGUED: James M. Love, GASSAWAY & LOVE, Tulsa, Oklahoma, for Appellant. Michael Zaleski, QUARLES & BRADY, Madison, Wisconsin, for Appellee. **ON BRIEF:** James M. Love, GASSAWAY & LOVE, Tulsa, Oklahoma, Robert E. Reeves, LAW OFFICES OF ROBERT E. REEVES, Lexington, Kentucky, for Appellant. Michael Zaleski, QUARLES & BRADY, Madison, Wisconsin, David B. Bartel, Patrick S. Nolan, QUARLES & BRADY, Milwaukee, Wisconsin, J. Stanley Rogers, ROGERS & DUNCAN, Manchester, Tennessee, for Appellee.

OPINION

RONALD LEE GILMAN, Circuit Judge. This is a products liability case brought by David E. Barnes, a practicing dentist, against the Kerr Corporation, a provider of dental amalgams (commonly known as “silver fillings”) that contain mercury, copper, tin, and silver. Barnes claims that, during a 13-year period ending in June or July of 1999, he and his staff were exposed to toxic mercury vapors when removing old fillings and inserting new ones, and that Kerr’s amalgams are the major source of his alleged mercury poisoning.

In July of 1999, Barnes brought an action against Kerr for negligence, the manufacture and sale of a defectively designed product, the failure to warn, intentional concealment, the failure to disclose a known defective condition, and breach of implied warranty. This action, which was initially brought in a Tennessee trial court, was removed to federal court by Kerr on the basis of diversity of citizenship. Despite holding that the expert testimony offered by Barnes was admissible, the district court granted summary judgment

to Kerr, concluding that Barnes had not established that Kerr was responsible for the vast majority of his exposure to mercury and that, in any event, the numerous warnings provided by Kerr were adequate as a matter of law. For the reasons set forth below, we **AFFIRM** the judgment of the district court.

I. BACKGROUND

A. Factual background

1. *Barnes's use of dental amalgams manufactured by Kerr*

Barnes began using amalgams in dental school, which he attended from 1982 until 1986. From 1986 until 1989, he was a practicing dentist in the United States Navy and, from 1989 on, he practiced dentistry in Shelbyville, Tennessee. Starting in 1986, when Kerr began manufacturing amalgams, until “June or July of 1999,” when Barnes stopped placing amalgam fillings, he claims that he purchased all of his amalgams from Kerr. Barnes resumed using dental amalgams in 2000 “[b]ecause [he] could not continue to practice effectively without placing amalgam fillings,” but he used amalgams from a different company.

During the time that Kerr provided the amalgams, Barnes claims that he “used about 3,000 amalgam capsules per year from Kerr.” Approximately 700 times per year, Barnes replaced old amalgams, a procedure that entails removing the old filling and inserting a new one. Barnes also placed around 360 crowns per year, a procedure that generally involves the removal of old amalgam fillings. The amalgams produced by Kerr consist of capsules of mercury and metal alloy, which the dentist combines by breaking a thin plastic wall separating the components, and then uses the amalgam as a filling.

As noted by the district court, there are approximately “35 manufacturers of dental mercury, amalgam alloy, and encapsulated dental mercury.” But Barnes presented evidence that Kerr’s products comprised 46% of the amalgam alloy market in 2003.

2. *Warnings included with the dental amalgams*

Barnes claims that he never received any information from Kerr stating that mixing dental amalgam presents a health risk. The jars in which the capsules were sent, however, bore prominent warning labels. These labels stated, in capital letters, that the product “CONTAIN[ED] METALLIC MERCURY” and featured an image of a skull and crossbones next to the word “POISON.” On a chart of different hazards, including flammability, reactivity, and health hazards, the labels warned that metallic mercury presents a “serious” health hazard. The labels also recommend using protective gear such as glasses, gloves, and a facemask when handling the amalgams, and warned that the ingestion of mercury could cause “Neurotoxic/Nephrotoxic effects,” that the inhalation of mercury could cause “Bronchiolitis, Pneumonitis, [and] Pulmonary Edema,” and that even skin contact with mercury could have harmful effects, including “redness and irritation to [the] eyes and skin.”

Furthermore, each jar included an insert with directions and an additional detailed warning. After instructions about how to use the product, the word “**WARNING**” appears in bold, capital letters, followed by the following paragraph about the dangers of, and appropriate precautions against, mercury exposure:

Alloy amalgam capsule products contain mercury. Since mercury is a potentially hazardous substance, proper care should be taken to prevent exposure to mercury. These preventative measures include the wearing of **gloves**, good ventilation, the use of an **enclosed amalgamator**, proper disposal of capsules once they have been activated and used, and the use of HGX or similar-type mercury absorbing chemicals in the event of spillage. Infrequently capsules may leak mercury and, as a consequence, the above precautionary measures should **always** be utilized.

(Emphasis in original.)

A third warning was included in the Material Safety Data Sheet (MSDS), a regularly updated document that Barnes acknowledged having received from Kerr for as long as he was purchasing Kerr products. The MSDS for the dental amalgam capsules described mercury as a “hazardous ingredient[]” and stated that chronic mercury poisoning could cause “nervous irritability, weakness, tremors, gingivitis, erethism and greying of the lens of the eye.” (Erethism, derived from a Greek verb meaning to irritate, is defined by the American Heritage Dictionary as the “[a]bnormal irritability or sensitivity of an organ or a body part to stimulation.” American Heritage Dictionary of the English Language, available at <http://www.bartleby.com/61/61/E0196100.html>.) The MSDS also echoed the label’s warning that mercury could have “[n]ephrotoxic effects,” stating that mercury could “aggravate[] [k]idney disorders.”

3. *Barnes’s alleged exposure to mercury*

Barnes alleged in his First Amended Complaint that he was “severely injured and afflicted” from exposure to mercury, and that he believed that he would be “prevented from attending to his occupational duties in the future as a direct and proximate result of these injuries and because of the need to prevent future exposures to mercury, which could result in further and additional physical and mental injuries.” This exposure allegedly came from three main sources. The primary source was “mercury vapor and mercury contained in amalgam particulate inhaled when removing existing amalgam from the teeth of patients.” According to Dr. Mark Richardson, Barnes’s expert witness, between 81% and 89.3% of Barnes’s daily exposure to mercury came from this source. Kerr, however, disputes whether the majority of amalgams that Barnes has removed during his career have been Kerr amalgams.

A second alleged source of exposure was “contaminated office air due to a variety of sources, including mercury released during trituration of capsules, opening of triturated capsules, free mercury that may have leaked during transport, and particulate released into the office air during amalgam removal.” Richardson estimated that between 2.5% and 10.9% of Barnes’s daily exposure came from this source. As noted by the district court, Kerr argues that much of this exposure could have come from sources other than leaking capsules.

The third source, which Barnes’s expert alleged was responsible for 7.5% to 8.2% of Barnes’s alleged exposure, was mercury vapor and mercury particulate generated during the placement of new amalgams. Kerr, however, disputes this percentage, noting that because Barnes generally did not use a drill when placing new fillings, he would not have been exposed to mercury particulate during this process.

In July of 1998, a repairman found mercury droplets inside the machine used to combine the capsules, and Barnes allegedly found mercury dust on the floors and countertops in his office. Barnes claimed that the Tennessee Occupational Health and Safety Administration (TOSHA) inspected his office and, even after it had been cleaned thoroughly, TOSHA still found that the office was contaminated. Barnes then “undertook a second, more vigorous clean-up, removing all movable furnishings to the outside, where the items were hosed off and then wiped down,” but an industrial hygienist found that 89% of the surfaces in Barnes’s office still showed traces of mercury.

B. Procedural background

This action, which originally included Barnes’s wife as a plaintiff in addition to Barnes himself, was initially brought in the Circuit Court for Bedford County, Tennessee. It was removed by Kerr to the United States District Court for the Eastern District of Tennessee on the basis of diversity of citizenship, with Mrs. Barnes no longer appearing as a plaintiff, in August of 1999. Barnes is a resident of Tennessee, whereas Kerr is a Delaware corporation with its principal place of business in California.

During discovery, Kerr moved for the exclusion of testimony from Barnes’s proposed experts pursuant to *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), and Rule 702 of the Federal Rules of Evidence, alleging that these experts would “inject untested, unreliable, and speculative ‘courtroom science’ into these proceedings [that] do nothing to support liability against [Kerr].” Following

the recommendation of the magistrate judge to whom the issue was referred, the district court held that the testimony of Barnes's witnesses in support of "a strong minority view that dental amalgam containing mercury is both unreasonably dangerous and hazardous to human health" was admissible. The district court nevertheless granted summary judgment to Kerr in March of 2004, holding that Barnes "ha[d] not demonstrated that his injuries would have occurred 'but for' exposure to Kerr's dental amalgam product," and further ruling that the numerous warnings provided by Kerr were "more than adequate [because] . . . [r]easonable minds could not differ as to their sufficiency." Barnes timely appealed the district court's grant of summary judgment to Kerr, and Kerr timely cross-appealed the district court's decision to admit the opinions of the experts proffered by Barnes.

II. ANALYSIS

A. Standard of review

The district court's grant of summary judgment is reviewed de novo. *Minadeo v. ICI Paints*, 398 F.3d 751, 756 (6th Cir. 2005). Summary judgment is proper where there exists no genuine issue of material fact and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(c). In considering a motion for summary judgment, the district court must construe the evidence and draw all reasonable inferences in favor of the nonmoving party. *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986). The central issue is "whether the evidence presents a sufficient disagreement to require submission to a jury or whether it is so one-sided that one party must prevail as a matter of law." *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 251-52 (1986).

Where an appellate court is "reviewing a trial court's decision to admit or exclude expert testimony under *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993)[,] . . . abuse of discretion is the appropriate standard." *Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 139 (1997). As this court has noted, "the same abuse of discretion standard applies to the . . . judge's decisions regarding *how* to determine the admissibility of the evidence in question." *Nelson v. Tenn. Gas Pipeline Co.*, 243 F.3d 244, 248 (6th Cir. 2001) (emphasis in original) (citing *Kumbo Tire v. Carmichael*, 526 U.S. 137 (1999)).

B. The district court's grant of summary judgment

1. Causation

Neither party disputes that Tennessee law is controlling in the present case. Under Tennessee law, "no negligence claim can succeed unless the plaintiff can first prove that the defendant's conduct was the cause in fact of the plaintiff's loss." *Waste Mgmt., Inc. of Tenn. v. S. Cent. Bell Tel. Co.*, 15 S.W.3d 425, 430 (Tenn. Ct. App. 1997); see also *Lindsey v. Miami Dev. Corp.*, 689 S.W.2d 856, 861-62 (Tenn. 1985) (concluding that, although the plaintiff "is not . . . required to prove the case beyond a reasonable doubt, [he must] . . . introduce evidence from which reasonable persons may conclude that it is more probable that the event was caused by the defendant than that it was not") (citation and quotation marks omitted); *Shouse v. Otis*, 448 S.W.2d 673, 676 (Tenn. 1969) (holding that, for a defendant to be held liable, its "omission must be such that[,] had it not happened[,] the injury would not have been inflicted").

Barnes claims in his brief that, even if the alleged harm from his exposure to mercury was not due entirely to Kerr products, Kerr "is jointly and severally liable for Dr. Barnes's injuries." A plaintiff whose injuries have multiple causes, however, can recover against a defendant only where the defendant's conduct was "a 'substantial factor' in bringing about the harm being complained of." *McClenahan v. Cooley*, 806 S.W.2d 767, 775 (Tenn. 1991). Although the doctrine of joint and several liability was once applicable in Tennessee, see *Velsicol Chem. Corp. v. Rowe*, 543 S.W.2d 337, 343 (Tenn. 1976) (applying joint and several liability where "an indivisible injury has been caused by the concurrent, but independent, wrongful acts or omissions of two or more wrongdoers"), the rule has since been rejected in all but a few circumstances. See *McIntyre v. Balentine*, 833 S.W.2d 52, 58 (Tenn. 1992) (adopting the doctrine of comparative negligence, and stating that "today's holding renders the doctrine of joint and several liability

obsolete,” because “[h]aving . . . adopted a rule more closely linking liability and fault, it would be inconsistent to simultaneously retain a rule, joint and several liability, which may fortuitously impose a degree of liability that is out of all proportion to fault”).

The doctrine of comparative negligence, in turn, is relevant to the present case only insofar as Barnes has shown that Kerr’s conduct was “a substantial factor” in causing Barnes’s alleged mercury poisoning. *McClenahan*, 806 S.W.2d at 775. For this reason, the district court correctly held that, in order to survive summary judgment, “[i]t is essential that Dr. Barnes prove . . . that the product manufactured and sold by Kerr or the warnings provided by Kerr proximately caused the injuries [Barnes] alleges to have sustained.”

Barnes points out that Kerr’s website “admit[ted] that it has 46% of the national market share” in dental amalgam production. The Tennessee Supreme Court, however, has not yet adopted the doctrine of market-share liability. See *Phillips v. R.J. Reynolds Indus., Inc.*, 769 S.W.2d 488, 489 (Tenn. Ct. App. 1988) (affirming the trial court’s grant of summary judgment against a plaintiff who pursued “industry wide/market share liability” in suing a tobacco company, but not discussing in detail whether market-share liability is a valid basis for recovery in Tennessee). Nor have we found a case analogous to the present one in which the theory has been applied in Tennessee, and the theory is not mentioned in Tennessee’s Products Liability Act. See Tenn. Code Ann. § 29-28-101 to 108 (defining and limiting products liability actions in Tennessee courts, but not discussing market-share liability).

Moreover, even if market-share liability were a valid basis for recovery in Tennessee, Barnes failed to provide any proof as to the percentage of the market that Kerr controlled between 1986 and 1999. Beyond pointing out that Kerr’s website claimed—in 2003—to have a 46% market share, and alluding to this fact in a footnote, on page 48 of his second brief, Barnes has presented no argument, and no evidence, to support a theory of market-share liability.

According to Barnes’s own expert, Dr. Richardson, at least 81% of Barnes’s exposure to mercury came from removing existing amalgam from the teeth of patients. So even if Barnes’s claim that Kerr controls 46% of the market in alloy amalgams is correct, and has been correct since 1986, this still means that over half of the dental amalgams in use have been manufactured by businesses other than Kerr. The difficulty of attributing Barnes’s alleged mercury poisoning to Kerr is further emphasized by Barnes’s admission that, when removing a dental amalgam, he is unable to tell who manufactured it.

Barnes also failed to present sufficient evidence that Kerr was responsible for his exposure to mercury-contaminated office air and the release of mercury particulate during the placement of new amalgams. As the district court correctly noted, Barnes has not produced any evidence establishing what percentage of the mercury in the air of his office came from Kerr’s products. Moreover, according to Dr. Richardson, mercury particulate would be released only during the placement of new amalgams if Barnes used a drill. Barnes’s admission that he usually did not use a drill when placing new amalgam fillings therefore effectively excludes the placement of new amalgam fillings as a significant source of mercury exposure.

Barnes has thus failed to present evidence that would permit a “reasonable person[] . . . [to] conclude that it is more probable that [Barnes’s alleged mercury poisoning] was caused by [Kerr] than that it was not.” *Lindsey*, 689 S.W.2d at 861-62 (citation and quotation marks omitted). We therefore affirm the district court’s holding that Barnes failed to show causation.

2. *Warnings*

Barnes also alleges that Kerr failed to include warnings about the dangers of exposure to mercury. As Kerr correctly notes, the adequacy of a product warning can be decided as a matter of law where reasonable minds cannot differ as to its sufficiency. See *Jacobs v. E.I. du Pont de Nemours & Co.*, 67 F.3d 1219, 1245 (6th Cir. 1995) (interpreting Tennessee law and holding that a warning about the use of Teflon products in medical applications was adequate as a matter of law). In a case involving prescription drug

warnings, the Tennessee Supreme Court set out five general criteria to determine the adequacy of product warnings:

1. the warning must adequately indicate the scope of the danger;
2. the warning must reasonably communicate the extent or seriousness of the harm that could result from misuse of the [product];
3. the physical aspects of the warning must be adequate to alert a reasonably prudent person to the danger;
4. a simple directive warning may be inadequate when it fails to indicate the consequences that might result from failure to follow it and, . . .
5. the means to convey the warning must be adequate.

Pittman v. Upjohn Co., 890 S.W.2d 425, 429 (Tenn. 1994) (citation omitted); *see also Evridge v. Am. Honda Motor Co.*, 685 S.W.2d 632, 636 (Tenn. 1985) (holding that a warning is adequate under Tennessee law if it is “one calculated to bring home to a reasonably prudent user of the product the nature and the extent of the danger involved in using the product”) (citation omitted). An action based on an inadequate warning requires not only that the warning itself be defective, but that the plaintiff “establish [that] the product is unreasonably dangerous by reason of defective warning and . . . that the inadequate labelling proximately caused the claimed injury.” *Hurt v. Coyne Cylinder Co.*, 956 F.2d 1319, 1329 (6th Cir. 1992) (interpreting Tennessee law).

Although a product manufacturer generally has a duty to warn of the dangers of its own products, it does not have a duty to warn of the dangers of another manufacturer’s products. *See Kellar v. Inductotherm Corp.*, 498 F. Supp. 172, 175 (E.D. Tenn. 1978) (interpreting Tennessee law and noting that “[i]f a manufacturer could be held liable for injury merely because it foresaw a danger created by another party, there would literally be no end of potential liability. To sustain such a theory would be to cast manufacturers into the role of insurers of products manufactured by others”). This is true even where a manufacturer has sufficient expertise to foresee the dangers of another company’s products. *See id.*

In the present case, the warnings that Kerr gave to Barnes were sufficient as a matter of law. These warnings “adequately indicate the scope of the danger,” *Pittman*, 890 S.W.2d at 429, by providing lists of serious medical ailments that can result from exposure to mercury. For example, the label on each jar of dental amalgam capsules featured not only a skull and crossbones next to the word “POISON,” but also a list of illnesses, including “Bronchiolitis, Pneumonitis, Pulmonary Edema, [and] redness and irritation to [the] eyes and skin.” Likewise, the MSDS warned that chronic mercury exposure could lead to “nervous irritability, weakness, tremors, gingivitis, erethism and greying of the lens of the eye.”

The warnings also gave detailed advice on how to use the dental amalgam capsules in order to avoid mercury exposure. They “reasonably communicate the extent or seriousness of the harm that could result from misuse” of the capsules, *Pittman*, 890 S.W.2d at 429, by emphasizing that exposure to mercury can lead to the ailments described above. For this reason, the warnings are not “simple directive warning[s] that] . . . fail[] to indicate the consequences that might result from failure to follow [them].” *Id.*

Finally, the physical aspect of the warning and the means used to convey the warning both favor Kerr. Kerr not only used a prominently displayed warning on the jar labels, with the skull and crossbones and a detailed list of serious medical ailments, but also included a warning in both the enclosed instructions and in the form of the MSDS periodic mailings. Far from being physically concealed, or presented in a manner not likely to alert a reasonable person, Kerr’s warnings were openly displayed and repeatedly presented in three separate media. Indeed, as Kerr noted in its briefs, one has difficulty “imagin[ing] what more Kerr could have done to advise Barnes about the potential dangers . . . that can result from exposure to elemental mercury.”

Barnes, however, contends that the warnings were inadequate because they stated the dangers of mercury alone, but not of mercury combined with the other ingredients of dental amalgams. We find this argument unpersuasive for two reasons. First, the admonitory power of the warning would not be increased

by a statement that mercury is also dangerous when used in conjunction with the other ingredients in dental amalgams. The warnings already state that the dental amalgams contain mercury, enumerate the physical ailments that can result from mercury exposure, and provide a list of precautions for minimizing the danger of exposure. They do not claim that the other ingredients neutralize the danger while the dentist is working with the product.

The second reason that Barnes's argument is unpersuasive is that he has cited no Tennessee authority holding that a warning about a dangerous ingredient in a product must affirmatively state that the particular ingredient remains dangerous when it is combined or is being combined with the other ingredients. The fact that the warnings included such precautions as wearing glasses and gloves, using a facemask, and mixing the ingredient in an "amalgamator" clearly put Barnes on notice that the mercury was not simply dangerous in the abstract.

Reasonable minds therefore could not differ as to the sufficiency of the warnings given to Barnes. *See Jacobs*, 67 F.3d at 1245 (holding that, where reasonable persons cannot differ as to the adequacy of warnings, "there are no material issues of fact necessitating a trial"). For that reason, even if Barnes had established causation, we would affirm the district court's grant of summary judgment because the warnings provided by Kerr were adequate as a matter of law.

C. The admissibility of Barnes's expert witnesses

Kerr alleges in its cross-appeal that the district court erred in accepting the magistrate judge's recommendation to admit the testimony of the expert witnesses proffered by Barnes. Even with this expert testimony, however, Barnes failed to establish causation and failed to raise a genuine issue of material fact as to the adequacy of Kerr's warnings. We therefore conclude that no jurisprudential purpose would be served by reviewing the district court's ruling with regard to Barnes's expert witnesses.

III. CONCLUSION

For all of the reasons set forth above, we **AFFIRM** the judgment of the district court.