A fundamental tenet of toxicology is that “the dose makes the poison.” Federal Judicial Center, *Reference Manual on Scientific Evidence, Reference Guide on Toxicology* 403 (2000). Thus, in toxic tort cases, courts routinely require plaintiffs to demonstrate not just some exposure to an alleged harm but “evidence from which the trier of fact could conclude that the plaintiff was exposed to levels of toxins sufficient to cause the harm complained of.” *Wintz v. Northrop Corp.*, 110 F.3d 508, 513 (7th Cir. 1997); *Wright v. Willamette Indus., Inc.*, 91 F.3d 1105, 1107 (8th Cir. 1996). In fact, “[d]ose is the single most important factor to consider in evaluating whether an alleged exposure caused a specific adverse effect.” David L. Eaton, “Scientific Judgment and Toxic Torts: A Primer in Toxicology for Judges and Lawyers,” 12 *J.L. & Pol’y* 5, 11 (2003). This article addresses some recent cases that several courts have issued, offering a consensus that no matter what the plaintiff’s expert in an asbestos case calls it, the “every exposure” opinion should be excluded because it lacks a sound toxicological basis and there is no reliable scientific methodology employed in reaching it.

**The Detour from Dose**

Plaintiffs’ counsel and plaintiffs’ experts in asbestos cases, looking to cast liability on all defendants, have taken a detour from this black-letter tort law by espousing various versions of the “any exposure” opinion. In an attempt to circumvent the negative reactions to the “every exposure” theory, plaintiffs’ experts sometimes refer to this opinion as “each and every” fiber or exposure, “every exposure above background,” or “cumulative dose.” Regardless of the name or creative description used, this opinion posits that—no matter how small, superficial, fleeting, irregular, or insubstantial an exposure to asbestos may be—it theoretically and mathematically increases a person’s risk of developing a disease. This is true even if that increase was infinitiesmally small. Therefore, plaintiffs’ experts opine, any exposure must be considered a substantial factor in the development of any disease. Thus, the hallmark of this opinion is that “any exposure to asbestos fibers whatsoever, regardless of the amount of fibers or length of exposure constitutes an underlying cause of injury.” *Krik v. Exxon Mobil Corp.*, 870 F.3d 669, 672 (7th Cir. 2017).

Plaintiffs’ experts argue that, because it is impossible to know what fiber or fibers, or even what exposure or exposures, actually caused the cellular changes that became a disease, each and every exposure to asbestos is a substantial factor in causing a plaintiff’s asbestos-related illness. Starting with the language “each and every exposure,” many experts have pivoted and changed their language to pursue the same opinion based on the same theory as courts throughout the
country have excluded such expert opinions. An outgrowth of the “every exposure” opinion is the “cumulative exposure” opinion, which suggests that because each exposure, no matter how small, adds to that cumulative exposure, and because it is the “cumulative exposure” that causes the disease, each exposure must be considered a substantial contributing factor.

Plaintiffs’ counsel and plaintiffs’ experts have used the “every exposure” opinion and now the “cumulative exposure” opinion to keep defendants with trivial alleged exposures in cases at the summary judgment stage and to obtain verdicts for such alleged exposures at trial. Particularly, in joint and several liability states, plaintiffs’ attorneys use this approach to obviate the substantial contributing factor requirement and to force small players to pay big dollars.

**Courts Reject “Every Exposure” and Attempt to Correct Course**

There have been a number of cases over the past two decades that have slowly dismantled asbestos plaintiffs’ experts’ “each and every exposure theory.” See, e.g., *McIndoe v. Huntington Ingalls Inc.*, 817 F.3d 1170, 1177–78 (9th Cir. 2016); *Lindstrom v. A-C Prod. Liab. Tr.*, 424 F.3d 488, 493 (6th Cir. 2005); *Ford Motor Co. v. Boomer*, 736 S.E.2d 724, 732–33 (Va. 2013); *Holcomb v. Ga. Pac.*, LLC, 289 P.3d 188 (Nev. 2012); *Borg-Warner Corp. v. Flores*, No. 05-0189 (Tex. June 8, 2007); *Gregg v. V-J Auto Parts Co.*, 943 A.2d 216, 226–27 (Pa. 2007). The clear recent trend in courts across the country is to recognize that the “every exposure” opinion lacks a sound toxicological basis, failing Daubert because it is not testable, has no rate of error, and has not been subject to peer review. Based on this, it is clear that “the law is now headed toward a consensus that the ‘every exposure’ theory is unreliable and inadmissible.” *Barabin v. Scapa Dryer Fabrics, Inc.*, No. C07-1454, 2018 WL 840147, at *12 (W.D. Wash) (recognizing that more than 30 other federal and state courts have rejected the “every exposure” theory). This trend recognizes the “every exposure above background” and “cumulative exposure” opinions for what they are, a repackaging of the “each and every exposure” opinion that has been soundly rejected and continues to be rejected, including any new language. Some of the experts have even been frank, admitting that after their opinion had been excluded, they simply used different language to express that very same opinion.

**Heading in the Right Direction**

The most recent significant court to address the “cumulative exposure” opinion was the Ohio Supreme Court, which, in *Schwartz v. Honeywell International, Inc.*, 2018-Ohio-474 (Ohio 2018), held that the “cumulative exposure” opinion was no different than “each and every exposure,” did not meet the substantial factor test, and was scientifically unreliable. In *Schwartz*, the Ohio Supreme Court reversed a $20.2 million jury verdict for the plaintiff, excluding the opinion of the plaintiff’s causation expert. In particular, the court held that the cumulative exposure theory, “which postulates that every non-minimal exposure to asbestos is a substantial factor in causing mesothelioma,” is inconsistent with Ohio’s substantial factor test. The court found a number of problems with the cumulative exposure theory, including (1) its inconsistency with the statutory requirement that substantial causation be measured by the manner, proximity, length, and duration of exposure; (2) its failure to perform an individualized determination for each defendant; and (3) the fact that even minimal exposures contribute to a plaintiff’s.
cumulative dose. The Schwartz opinion is an affirmation of a long buildup of cases leading to it and addressing “any exposure” and an explicit extension of that reasoning to the “cumulative exposure” opinion, finding that it was nothing more than the “each and every exposure” opinion dressed up with different language.

The Schwartz case was preceded by dozens and dozens of cases over the years that have slowly eradicated the “each and every exposure” theory and its progeny. Much of the foundation for the Schwartz opinion can be found in several prior decisions, including Krik v. Exxon Mobil, 870 F.3d 669 (7th Cir. 2017). In Krik, the defendants had sought to exclude the plaintiff’s expert from providing “each and every exposure” opinion testimony. The district court judge agreed that the “each and every exposure” theory was not sufficiently reliable to warrant admission under Federal Rule of Civil Procedure 702 and Daubert, and the court excluded that testimony. At trial, the plaintiff had repackaged this expert testimony into the “cumulative exposure theory,” but the district court did not fall for the bait, excluding the rebranded testimony because it was “not tied to the specific quantum of exposure attributable to the defendants, but was instead based on his medical and scientific opinion that every exposure is a substantial contributing factor to the cumulative exposure that causes cancer.” Krik v. Owens-Illinois, Inc., No. 10-CV-07435, 2015 WL 5050143, at *1 (N.D. Ill. Aug 25, 2015). The Seventh Circuit agreed, finding that the district court “correctly concluded that the cumulative exposure theory was no different from the ‘each and every exposure’ theory that had been excluded at the motion in limine.”

So Where Are We Now?

No matter how or how much plaintiffs’ counsel in asbestos litigation protest to the contrary, and no matter how much their experts try to repackage, rephrase, or explain these “any exposure” opinions and how they were reached, there is a clear consensus and a growing trend in state and federal courts around the country to exclude each and every derivation of the “each and every exposure” opinion. Ultimately, Schwartz and Krik reflect the latest opinions offered in this recent trend that recognizes that de minimis is de minimis, no matter how described. An “any exposure” or “cumulative exposure” opinion offered with little, if any, regard to the actual facts of a case is unreliable. And, perhaps more importantly, the theory behind those opinions—that because it is unknown what exposure actually caused the disease, any unquantified exposure no matter how small must be considered a substantial factor without any assessment of dose—is not a sound scientific opinion reached by applying reliable scientific methodology. Finding the “cumulative exposure” opinion was a dead-end, Schwartz heads back toward the black-letter law, reiterating the message that experts who disregard dose destine their opinion to exclusion. After all, it is the dose that makes the poison.
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