

The Unwarranted Basis for Today's Asbestos “Take-Home” Cases

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Abstract

This Article discusses the current posture of “take-home” asbestos litigation and distinguishes the lack of merit of such cases from previous “take-home” asbestos cases. It further identifies sources other than asbestos that commonly cause mesothelioma that lead to “take-home” litigation. Moreover, this Article articulates the issues with the any exposure causation theory typically used by experts in asbestos litigation. This Article suggests the future of asbestos litigation largely hinges on the willingness of courts to address the discussed cases that have no proven merit in science.

Introduction

Asbestos litigation—the longest-running mass tort in United States history—should have started on a downward slope toward its conclusion over the last few years. The litigation should have tracked the life expectancy of the generations of American workers, mostly men, who were exposed to high levels of asbestos before modern control standards were instituted in 1972 by the Occupational Safety and Health Administration (OSHA).¹ Instead, this litigation continues to crowd dockets and

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¹ See, e.g., Suresh H. Moolgavkar, Rafael Meza & Jay Turim, *Pleural and Peritoneal Mesotheliomas in SEER: Age Effects and Temporal Trends*, 20 *CANCER CAUSES CONTROL* 935, 942 (2009) (noting the asbestos epidemic appears to have “abated” with the birth cohort of 1965); Mary Jane Teta et al., *US Mesothelioma Patterns 1973-2002: Indicators of Change and Insights into Background Rates*, 17 *EUR. J. CANCER PREVENTION* 525, 526 (2008) (noting that incidence rates should be declining); Bertram Price & Adam Ware, *Mesothelioma Trends in the United States: An Update Based on Surveillance, Epidemiology, and End Results Program Data for 1973 Through 2003*, 159 *AM. J. CANCER EPIDEMIOLOGY* (2004) (predicting a decline to background levels by 2055).

enmesh thousands of corporate defendants, many of whom never made an asbestos product.

The continued vigor of asbestos litigation is partly because of the filing of *de minimis*² and speculative exposure claims. Since the manufacturers who used to be involved in litigation have largely gone bankrupt, today's cases rarely involve the insulators and other heavily exposed workers who once dominated the litigation.³ Instead, many cases today involve workers who rarely and sometimes never touched an asbestos product or even worked in close proximity to anyone who did.⁴ Those workers may have operated forklifts, worked on assembly lines, or worked at desks and claim that asbestos from some other place in their work facility drifted into their environment and caused their disease.⁵

Among the class of minimal exposure cases is the "take-home" case.⁶ The take-home case does not involve persons who were present on the property where asbestos was used or handled.⁷ Instead, take-home cases, also known as household exposure cases, typically allege that a person, usually a worker's spouse or child, developed mesothelioma from the worker in the person's home who brought asbestos home on his or her work clothes.⁸ Product manufacturers and premises owner defendants

² *De minimis*, BLACK'S LAW DICTIONARY (10th ed. 2014) ("trifling; negligible").

³ See generally Mark D. Plevin et al., *Where Are They Now, Part Seven: An Update on Developments in Asbestos-Related Bankruptcy Cases*, 13 MEALEY'S ASBESTOS BANKR. REP. at 1 (July 2014) (listing and summarizing all new asbestos related bankruptcies since 2013).

⁴ See, e.g., *Florida Jury Awards \$17 Million for Man's Bystander Exposure to Drywall Compound*, 30-14 MEALEY'S ASB. LITIG. RPT. at 1 (Aug. 14, 2015); *Witnessing Mesothelioma Doesn't Trigger Lejeune Bystander Damages, Judge Says*, 30-10 MEALEY'S ASB. LITIG. RPT. at 10 (June 17, 2015) (claim based on merely witnessing person's mesothelioma) [hereinafter *Witnessing Mesothelioma*]; *Plaintiffs to 5th Circuit: No Forum Manipulation in Naming of Defendants*, 30-6 MEALEY'S ASB. LITIG. RPT. at 18 (Apr. 22, 2015) (office worker claimed exposure from others' work with plant insulation); *Justice: Internal Conflict in Testimony Can't Negate Existence of Genuine Issues*, 27-7 MEALEY'S ASB. LITIG. RPT. at 15 (May 2, 2012) (bystander exposure to valves).

⁵ See *Grant v. Am. Sugar Ref., Inc.*, 952 So. 2d 746, 747 (La. Ct. App. 2007); *Witnessing Mesothelioma*, *supra* note 4, at 10.

⁶ *Price v. E.I. DuPont de Nemours & Co.*, 26 A.3d 162, 171 (Del. 2011).

⁷ *Campbell v. Ford Motor Co.*, 141 Cal. Rptr. 3d 390, 394 (Cal. App. Dep't Super. Ct. 2013).

⁸ See *Gillen v. Boeing Co.*, 40 F. Supp. 3d 534, 536 (E.D. Pa. 2014).

are faced with a growing class of cases involving not only the users of the products or workers on their premises, but anyone those persons may come into contact with after ending their work day.⁹

Reports of take-home mesothelioma cases appear in medical literature where spouses or children have experienced disease from asbestos brought home from the workplace.¹⁰ However, such studies typically involve only extensive workplace exposures to asbestos and years of similar exposures at home from washing the workers' clothes.¹¹ A significant number of take-home cases on today's docket arise out of minimal workplace exposures by the worker and from persons at the worker's home who were exposed to far less asbestos than the minimal exposure of the worker.¹²

⁹ See, e.g., *Gillen v. Boeing Co.*, 40 F. Supp. 3d 534, 536 (E.D. Pa. 2014); *Price v. E.I. DuPont de Nemours & Co.*, 26 A.3d 162, 163 (Del. 2011); *CSX Transp., Inc. v. Williams*, 608 S.E.2d 208, 208 (Ga. 2005); *Simpkins v. CSX Transp., Inc.*, 965 N.E.2d 1092, 1094 (Ill. 2012); *Ga. Pac. v. Farrar*, 69 A.3d 1028, 1030 (Md. 2013); *In re N.Y.C. Asbestos Litig.*, 840 N.E.2d 115, 116 (N.Y. 2005); *Alcoa, Inc. v. Behringer*, 235 S.W.3d 456, 458 (Tex. App. 2007).

¹⁰ See, e.g., Muriel L. Newhouse & Hilda Thompson, *Mesothelioma of Pleura and Peritoneum Following Exposure to Asbestos in the London Area*, 22 BRIT. J. INDUS. MED. 261, 264-65 (1965); Christine Rake et al., *Occupational, Domestic and Environmental Mesothelioma Risks in the British Population: A Case-Control Study*, 100 BRIT. J. CANCER 1175, 1175 (2009); Nicholas J. Vianna & Adele K. Polan, *Non-Occupational Exposure to Asbestos and Malignant Mesothelioma in Females*, 311 LANCET 1061, 1062 (1978).

¹¹ Newhouse & Thompson, *supra* note 10, at 264; Vianna & Polan, *supra* note 10.

¹² See *Millsaps v. ALCOA, Inc.*, No. 10-348 (E.D. Tenn. 2014), *in* 30-2 MEALEY'S LITIG. REP.: ASBESTOS 22 (Feb. 18, 2015) (plaintiff visited home of boyfriend, whose father was construction worker); *Sherin v. John Crane-Houdaille, Inc.*, 47 F. Supp. 3d 280, 282 (D. Md. 2014), *in* 29-17 MEALEY'S LITIG. REP.: ASBESTOS 19 (Oct. 8, 2014) (husband visited new home construction sites but did not work with asbestos); *Francis v. Union Carbide Corp.*, 116 So. 3d 858, 859 (La. Ct. App. 2013), *in* 28-8 MEALEY'S LITIG. REP.: ASBESTOS 12 (May 15, 2013) (plaintiff claimed exposure from washing clothes as a boy less than nine years old); *Huxley v. 20th Century Glove Corp.*, Civ. A. No. 13-C-75 KAN (Kanawha County, W.V.) (kitchen worker claimed fibers left behind in workplace cafeteria caused her son's household mesothelioma) (available upon request from author); *Drufuka v. Ford Motor Co.*, No. 2010-2558 (N.Y. Sup. 2014), *in* 29-23 MEALEY'S LITIG. REP.: ASBESTOS 1 (Jan. 7, 2015) (one to two years laundering brake mechanic's clothes); *Frieder v. Long Island R.R.*, 966 N.Y.S.2d 835, 837 (N.Y. Sup. Ct. 2013), *in* 28-10 MEALEY'S LITIG. REP.: ASBESTOS 6 (June 19, 2013) (cashier in diner that served railroad workers claimed "take-home" exposure in the diner); *Farrar*, 69 A.3d at 1030 (six to seven month exposure to drywall caused granddaughter's take-home disease).

As described below, take-home cases being filed today are not based on changes in medical literature or the results of new scientific reasoning documenting that such cases are asbestos-induced diseases. Instead, the increase in filings of take-home cases is due to a convergence of factors unrelated to actual asbestos-produced disease, namely:

- The aging population is producing more spontaneously-generated mesotheliomas, which provide a source of potential plaintiffs based on claimed minimal asbestos exposure.¹³
- A cadre of testifying plaintiff experts claim spontaneously-generated mesotheliomas are instead asbestos-induced without conducting any dose assessment or proving an actual causative link to prove such contention—instead, such experts typically rely on some version of the discredited *any exposure* theory, which allows the smallest of exposures to be considered causative.¹⁴
- While the judiciary in some states has begun dismissing some household cases on legal duty grounds or for insufficient evidence of dose, some courts are still allowing meritless take-home cases to proceed to a jury.¹⁵

A take-home case based on *de minimis* and speculative exposures should not have much value as a compensable claim. But today, these cases often command large settlements because of the risk of exposing a sympathetic plaintiff to a jury where the chances of a significant verdict are very probable. This risk exists despite the unquestioned data on female and male mesotheliomas, discussed below, demonstrating that it is incredibly difficult to induce a case of take-home mesothelioma from asbestos exposures.

The judiciary handling asbestos cases should begin to more aggressively serve as a gatekeeper for take-home lawsuits. Courts can serve as gatekeepers by requiring, as in any other toxic tort case, that plaintiff experts prove a causative dose or face exclusion under *Daubert/Frye*

¹³ See *infra* subsection I.C.

¹⁴ See cases cited and discussed *infra* notes 71-73.

¹⁵ See cases cited *supra* note 14 and *infra* notes 74-77.

proceedings.¹⁶ However, it may be more efficient to impose realistic duty limitations to prevent liability from expanding to an infinite class of people who may have speculatively “inhaled some fibers” from a worker’s clothes. Some courts have already imposed such duty limits, but others have rejected duty limitations.¹⁷ There is no medical, scientific, or policy reason to provide unwarranted payments to an individual unfortunately suffering from a spontaneously generated disease that has no proven relation to asbestos exposure.

I. The Effect of Trend Lines for Spontaneous Mesothelioma on Take-Home Litigation

The role of minimal exposure cases in today’s asbestos docket is largely a function of plaintiffs’ experts’ decisions to speculate about causation at vanishingly small levels of exposure in lieu of performing the critical job of proving a causative dose. The take-home or household claims are an important component of the above phenomenon and are illustrative of low dose cases arising out of a growing number of non-asbestos induced mesotheliomas due to population aging. Creative use

¹⁶ *Henricksen v. ConocoPhillips Co.*, 605 F. Supp. 2d 1142, 1157 (E.D. Wash. 2009) (discussing *any exposure* testimony as it applies to benzene, the dose-response relationship, and the “*Daubert* question”).

¹⁷ *Compare, e.g.*, *Beckering v. Shell Oil Co.*, No. B256407, 2014 WL 6611088, at *1-2 (Cal. Ct. App. Nov. 21, 2014) (imposing duty limit), *Campbell v. Ford Motor Co.*, 206 Cal. App. 4th 15, 34 (Cal. Ct. App. 2012) (imposing duty limit), *Price v. E.I. DuPont De Nemours & Co.*, 26 A.3d 162, 169-70 (Del. 2011) (imposing duty limit), *CSX Transp. v. Williams*, 608 S.E.2d 208, 210 (Ga. 2005) (imposing duty limit), *In re Certified Question from Fourteenth Dist. Ct. of Appeals of TX (Miller v. Ford Motor Co.)*, 740 N.W. 2d 206, 216 (Mich. 2007) (imposing duty limit), *In re Holdampf v. A.C. & S., Inc.*, 840 N.E.2d 115, 151 (N.Y. 2005) (citing *Widera v. Ettco Wire & Cable Corp.*, 204 A.D.2d 306 (N.Y. App. Div. 1994)) (imposing duty limit), *with Stegemoller v. ACANDS, Inc.*, 767 N.E.2d 974, 976 (Ind. 2002) (rejecting duty limit), *Chaisson v. Avondale Indus.*, 947 So. 2d 171, 181, 183-84 (La. Ct. App. 2006) (quoting *Zimko v. Am. Cyanamid*, 905 So. 2d 465, 483 (La. Ct. App. 2005)) (rejecting duty limit), *writ denied*, 954 So. 2d 145 (La. 2007), *In re Cuddihy v. Builders Supply & Lumber, No. I 2007-3580*, 8 (N.Y. Super. Ct. 2008) (available upon request from author) (rejecting duty limit), *Satterfield v. Breeding Insul. Co.*, 266 S.W.3d 347, 369 (Tenn. 2008) (rejecting duty limit), *Rochon v. Saberhagen Holdings, No. 58579-7-I.*, 2007 WL 2325214, at *4-5 (Wash. Ct. App. Aug. 13, 2007) (rejecting duty limit).

of *any exposure* causation testimony by experts converts these non-asbestos mesotheliomas into unwarranted asbestos cases.

A. The Source of Historical Take-Home Cases of Mesothelioma

To understand today's take-home litigation environment, a short description of the kinds of exposures that historically produced take-home disease provides useful background. The first documented instance of asbestos causing disease among spouses is illustrated in the Newhouse study in 1965.¹⁸ In 1960, an earlier study by Wagner identified persons in the homes of crocidolite miners in South Africa with the disease, but the neighborhoods were impregnated with large tailings piles and other sources of fibers. The take-home contribution was therefore unclear.¹⁹ Newhouse identified a series of mesotheliomas associated with relatives who worked in old asbestos factories, textile plants, and boiler rooms in London with between two and forty-one years of constant and heavy raw fiber asbestos exposure.²⁰ One of these workers—a “docker”—for instance, was “white with asbestos” every day.²¹ The at-home relatives were exposed to clothes with amounts of fiber highly unlikely to occur after OSHA exposure limits and other modern protections were instituted in the early 1970s. Still, Newhouse only identified nine such spouses with mesothelioma across the entire population served by the London Hospital, and the asbestos work force served by London Hospital likely consisted of thousands of plant and asbestos workers, most of whom had spouses who laundered their clothes.²²

In the mid-to-late-1970s, researchers published a number of studies concerning isolated take-home asbestos disease but typically in inconclu-

¹⁸ Newhouse & Thompson, *supra* note 10, at 265.

¹⁹ J.C. Wagner, C.A. Sleggs, & Paul Marchand, *Diffuse Pleural Mesothelioma and Asbestos Exposure in the North Western Cape Province*, 17 BRIT. J. INDUS. MED. 260, 269 (1960).

²⁰ Newhouse & Thompson, *supra* note 10, at 268.

²¹ *Id.* at 264.

²² *Id.*

sive case reports or case series.²³ One of the first case control studies, published in 1978, found an increased incidence of mesothelioma in spouses of asbestos workers, most of whom worked in insulation and related trades.²⁴ Like the Newhouse study, these workers' relatives were likely exposed to extensive amounts of raw or highly friable asbestos in an earlier era, and many of their spouses likely had exposures at home consistent with a heavy workplace exposure.²⁵ But there were only ten such spouses with mesothelioma in all of New York diagnosed between 1967 and 1977.²⁶ It is apparent that even the heavy pre-OSHA exposures were not sufficient to cause more than a handful of take-home mesotheliomas.

Studies since then have almost always focused on high-exposure workplace settings as the source of take-home mesothelioma—for instance, “asbestos miners, asbestos factory workers, shipyard/dock workers, textile workers, furnace/engine/boiler room workers, railway carriage builders, pipefitters, and insulators.”²⁷ Many of the studies merely tried to identify whether household exposure produced an increased risk of disease and did not try to isolate or measure the extent and type of exposure necessary to produce disease.²⁸ Where hundreds or thousands of workers have historically incurred mesothelioma from the “dusty trades” workplace, only a limited number of spouses or children also

²³ See, e.g., Ellen P. Donovan et al., *Evaluation of Take Home (Para-Occupational) Exposure to Asbestos and Disease: A Review of the Literature*, 42 CRIT. REVIEWS IN TOXIC. 703, 716 (2012) (citing studies).

²⁴ Vianna & Polan, *supra* note 10, at 1061.

²⁵ *Id.* For instance, of the fifteen patients with mesothelioma in the Vianna case-control study, their husbands or fathers primarily worked as pipefitters and insulation workers. *Id.* at 1062 Table.

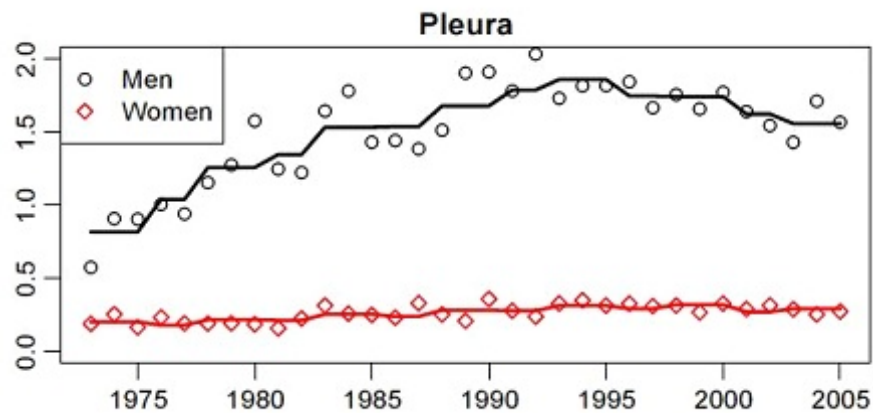
²⁶ *Id.* at 1062 (study identifying all females with mesothelioma in the state of New York twenty years and older who died between 1967 and 1977).

²⁷ Emily Goswami et al., *Domestic Asbestos Exposure: A Review of Epidemiologic and Exposure Data*, 10 INT. J. ENVIRON. RES. PUB. HEALTH 5629, 5652 (2013) (citing studies); see also Donovan et al., *supra* note 23, at 717 (focusing on “household contacts of miners, insulators, and workers in shipyards and other industrial locations containing historically high airborne asbestos concentrations and the potential for substantial clothing contamination”) (referencing case studies from the 1890s).

²⁸ See, e.g., Donovan et al., *supra* note 23, at 725 (Among studies that reported on home exposure levels, “very few studies reported on airborne asbestos concentrations in the workplace.”).

incurred mesothelioma in a household setting.²⁹ The studies are clear—it is possible, but difficult, for asbestos to cause a case of take-home mesothelioma.³⁰ Such cases have occurred historically in conjunction with heavy and extended, pre-OSHA exposure conditions.³¹

This point is illustrated by the following chart, which demonstrates the basic trend line for mesothelioma since the 1970s:³²



The trend line in this chart, based on data from the Surveillance, Epidemiology, and End Results (SEER) database of several United States mesothelioma registries, shows a dramatic and increasing mesothelioma experience for men starting in the 1970s, based mostly on exposures in the 1930s-1950s, given the long latency period for asbestos disease, and continuing into the 2000s.³³ But, the trend line for women is virtually flat and at much lower levels. Presumably, women incurred far less mesothelioma than men because they were not exposed to the extensive work-related exposures, such as the “dusty trades” and insulation, that

²⁹ See Goswami et al., *supra* note 27, at 5652.

³⁰ *Id.* at 5055-64.

³¹ *See id.*

³² Moolgavkar, *supra* note 1, at 938, Fig. 1.

³³ *Id.*

male workers in the 1930s to 1960s were.³⁴ The line for women is believed to reflect mostly "background" or non-asbestos caused mesotheliomas.³⁵

Consider what this chart would look like if—as certain testifying plaintiffs' experts routinely tell juries—even the most minimal level of "take-home" asbestos fibers causes spousal mesothelioma. Presumably, the men with mesothelioma in the top line, most of whom had very significant exposures, went home after work, to families with women and children in the house. Moreover, given the era involved, a great number of those women then washed the family's clothes, and the children played with their fathers, and they all presumably inhaled some amount of asbestos fibers. Yet, very few of these family members ever developed mesothelioma.³⁶ Thus, the actual incidence of mesothelioma illustrates exactly how hard it is to develop mesothelioma from take-home exposures. The dose received really does matter. Given this data, it is virtually certain that low levels of take-home, clothes-washing exposures do not cause mesothelioma, and plaintiff experts are incorrect when they so testify. Otherwise, the trend line for women would track the trend line for men.

Thus, excessive exposures at a level consistent with some pre-1972 work environments can induce disease, but there is no evidence in the SEER data that small doses, such as those found in today's typical take-home cases, do so. The attempt to convert minimal spousal home exposures to mesothelioma claims and litigation will produce a litigation trend line that is completely at odds with the actual trend line of the disease.

B. The Real Source of Many Mesotheliomas Today: Spontaneous Disease

Plaintiffs' experts often contend that mesothelioma is a "sentinel" or "signal" disease associated with asbestos to the extent that the mere presence of the disease compels a conclusion that asbestos must have

³⁴ *Id.* at 938.

³⁵ *Id.*; Teta et al., *supra* note 1, at 526.

³⁶ *See* Price & Ware, *supra* note 1, at 110-11.

been the cause.³⁷ However, mesothelioma actually has other known causes that must be accounted for in any given case. Studies document at least two other external causes—radiation therapy treatments of the kind used on earlier generations before the treatments became more targeted.³⁸ Such treatments are now a recognized cause of mesothelioma.³⁹ Exposure to a non-asbestos mineral, erionite, can also cause mesothelioma.⁴⁰

The most important alternative cause of mesothelioma, however, is the human body.⁴¹ The human system of cell division generates cancers, including mesothelioma, on its own.⁴² These cancers are called spontaneous cancers because they require no outside or environmental agent to produce them.⁴³ The human body itself—in addition to asbestos, radiation, and erionite—is thus, a known and recognized source of mesothelioma. The epidemiology literature suggests some significant portion of mesotheliomas every year in the United States are believed to be spontaneously induced, and the “background” rate is the rate of mesothelioma that would occur if asbestos did not exist.⁴⁴

³⁷ See, e.g., *Robertson v. Doug Ashvy Bldg. Mats., Inc.*, 168 So. 3d 556, 570 (La. App. 2015) (noting mesothelioma is a “signal” disease that indicates prior asbestos exposure even when the victim cannot recall any); *Bostic v. Ga.-Pac. Corp.*, 439 S.W.3d 332, 367 (Tex. 2014) (noting plaintiff expert testimony that the only known environmental cause of mesothelioma is asbestos exposure).

³⁸ See, e.g., Julie E. Goodman et al., *Ionizing Radiation: A Risk Factor for Mesothelioma*, 20 *CANCER CAUSES CONTROL* 1237, 1237 (2009); Mary Jane Teta et al., *Therapeutic Radiation for Lymphoma: Risk of Malignant Mesothelioma*, 109 *CANCER RADIOTHERAPY & MESOTHELIOMA* 1432, 1432 (2007).

³⁹ See *id.*

⁴⁰ See Ziya Toros Selcuk et al., *Malignant Pleural Mesothelioma Due to Environmental Mineral Fiber Exposure in Turkey: Analysis of 135 Cases*, 102 *CHEST* 790, 790 (1992).

⁴¹ See generally Stanley Venitt, *Mechanisms of Spontaneous Human Cancers*, 104 *ENVTL. HEALTH PERSPECTIVES* 633, 633 (1996), <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1469658> (referring to the obscure, unknown causes of cancer).

⁴² Venitt, *supra* note 41, at 635.

⁴³ *Id.*; Christian Tomasetti & Bert Vogelstein, *Variation in Cancer Risk Among Tissues Can Be Explained by the Number of Stem Cell Divisions*, 347 *SCIENCE* 78, 79 (2015).

⁴⁴ J.E. Craighead, *Epidemiology of Mesothelioma and Historical Background*, in *MALIGNANT MESOTHELIOMA* (A. Tannapfel ed., 2011) (“[M]any cases of mesothelioma are idiopathic, while some are caused by therapeutic irradiation or chronic inflammation in body cavities.”). The medical literature documents the existence of

As the body goes through the complex process of replicating long strings of DNA bases, errors occur.⁴⁵ Certain errors accumulate in certain cells and over time can transform a cell into a cancerous cell.⁴⁶ As Robert Weinberg, author of *One Renegade Cell*, stated, “[T]he rock-solid stability of the cell’s genetic data base is a mirage. The constancy of our genome is the result of a high-wire balancing act, a permanent struggle in which an ever-vigilant repair apparatus continuously fights off genetic chaos.”⁴⁷ Our bodies generate dozens of potentially cancerous cells every day and our bodily defenses are constantly working to prevent these cells from transforming into actual malignant tumors.⁴⁸

Because of the impact of genetic errors, a significant portion of all cancers—possibly as high as two-thirds—are believed to be spontaneously induced.⁴⁹ This point was addressed in a recent scientific study published in *Science*, which showed a high rate of cancers occurring in areas of the body where self-renewing cells had to reproduce at a high rate, thus increasing the chances of a series of errors.⁵⁰ The “majority”

spontaneous cases. *BTS Statement on Malignant Mesothelioma in the UK, 2007*, British Thoracic Society Standards of Care Committee (stating “the rate of ‘spontaneous’ mesotheliomas each year . . . is around one per million.”); Alastair J. Moore et al., *Malignant Mesothelioma*, 3 ORPHANET J. RARE DISEASES 34 (2008) (“[I]diopathic or spontaneous mesothelioma can also occur in the absence of *any exposure* to asbestos in both animals and humans, and a recent review suggests a spontaneous mesothelioma rate in humans of around one per million.”); B.T. Mossman et al., *Asbestos: Scientific Developments and Implications for Public Policy*, 247 SCIENCE 294, 295 (1990) (“[A]pproximately 20[%] to 30% of mesotheliomas occur in the general population in adults not exposed occupationally to asbestos.”); Robert Spiritas et al., *Malignant mesothelioma: attributable risk of asbestos exposure*, 51 OCCUPATION ENVTL. MED. 804-11 (1994) (eleven percent of cases of mesothelioma had no known source of asbestos exposure); H. Weill et al., *Changing Trends in US Mesothelioma Incidence*, 61 OCCUPATION ENVTL. MED. 438, 440 (2004) (stating “only about 20% of all mesotheliomas in women in the United States can reasonably be linked to asbestos exposure”); see also *Butler v. Union Carbide Corp.*, 712 S.E.2d 537, 538-39 (Ga. App. 2011) (discussing the “background rate” in the context of mesothelioma exposure).

⁴⁵ ROBERT A. WEINBERG, *ONE RENEGADE CELL: HOW CANCER BEGINS* 89-90 (1998).

⁴⁶ *Id.*; Venitt, *supra* note 41, at 635.

⁴⁷ WEINBERG, *supra* note 45, at 90.

⁴⁸ Venitt, *supra* note 41, at 637.

⁴⁹ Tomasetti & Vogelstein, *supra* note 43, at 78 (“Only a third of the variation in cancer risk among tissues is attributable to environmental factors or inherited predispositions.”).

⁵⁰ *Id.*

of cancers are due to “random mutations arising during DNA replication in normal, noncancerous stem cells.”⁵¹

The reality of spontaneously-induced cancers is widely accepted and certainly applies to mesotheliomas. Most asbestos epidemiology studies documented a large number of mesotheliomas, typically from twenty to fifty percent, that were not related to any known asbestos exposure other than background-level exposures received by all.⁵² In the series of take-home studies discussed above, measurements of actual asbestos fibers in the lungs of the at-home relatives regularly discovered a percentage whose asbestos burdens were normal with no excess above typical background found in unexposed persons.⁵³ Such instances reflect the reality that spontaneous mesothelioma occurs in conjunction with some background or low-level exposure, but not consequential asbestos exposure.

Asbestos is thus not the only cause of mesothelioma. Many instances of mesothelioma today are in fact caused by the human body’s own DNA reproduction errors.⁵⁴ Moreover, the numbers of such spontaneously-induced cancers are increasing.⁵⁵ It is critical for litigation purposes to separate today’s spontaneous mesotheliomas, with some but only incidental and meaningless asbestos exposures, from cases that are truly asbestos-induced.

C. The Trend Rate and Population Aging

The trend line for mesothelioma demonstrates that the number of mesotheliomas in the United States will increasingly be dominated by spontaneously-induced cancers—not asbestos-induced cancers.⁵⁶ The

⁵¹ *Id.*

⁵² See, e.g., Rake, *supra* note 10 at 1175 (14% of male and 62% of female cases of mesothelioma are “not attributable to occupational or domestic asbestos exposure”); Teta et al., *supra* note 1, at 526 (“[S]cientific evidence suggests that a portion of cases occurred with no apparent history of asbestos exposure It is generally well accepted, therefore, that there is a background rate of mesothelioma, unrelated to asbestos exposure.”).

⁵³ Donovan et al., *supra* note 23, at 704-05.

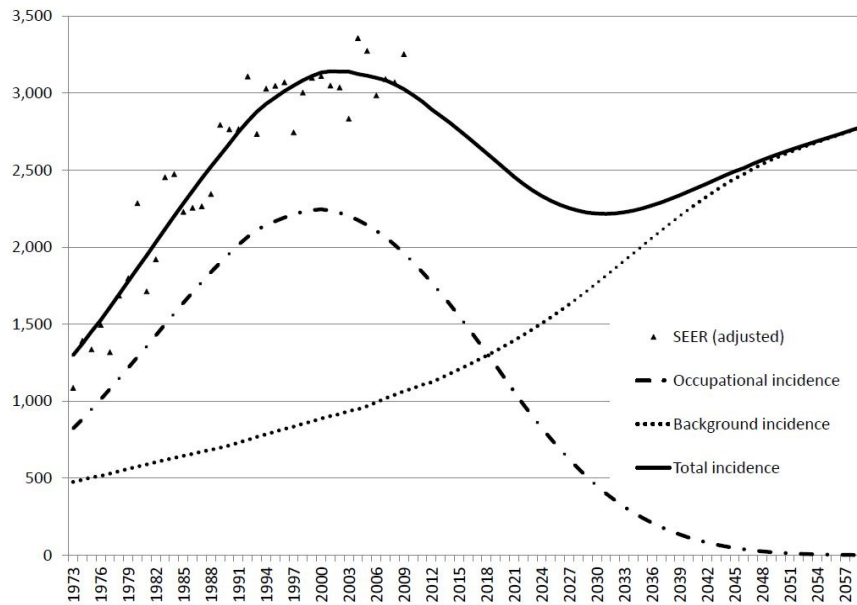
⁵⁴ See *id.* at 727.

⁵⁵ See sources cited and discussed *infra* notes 56-59.

⁵⁶ Jorge Gallardo-Garcia, *By the Numbers: The Future of Mesothelioma in America*, slide 6, presented at Cutting-Edge Issues in Asbestos Litigation Conference, Mar. 17-

reason for this is the aging cohort of truly asbestos exposed workers, coupled with the increase in spontaneous cancers in our ever longer-living and larger population.⁵⁷

One version of the future trend line of mesotheliomas, as estimated by the consulting firm Bates White in 2014, reveals an expected decline in asbestos-induced mesotheliomas (dot-dash line), but a fairly steady state of overall mesotheliomas (solid line) ranging between about 2200 and 2800 cases every year through 2057⁵⁸:



The reason mesotheliomas will increase has nothing to do with asbestos, but is from “other causes,” including spontaneous causes (dotted line). This increase is resultant of what happens when human beings live longer.⁵⁹ Our bodily defenses against cancer cells deteriorate as we age,

18, Beverly Hills, Calif. (used by permission). This version of the graph was modified by Bates White from the original color-coded version to a black-and-white version suitable for journal publication.

⁵⁷ See discussion *infra* notes 58-60.

⁵⁸ Gallardo-Garcia, *supra* note 56, at *6.

⁵⁹ M. Boniol & M. Hume, *Chapter 7: Age-Standardisation and Denominators*, IARC SCIENTIFIC PUBLICATION NO. 160, CANCER INCIDENCE IN FIVE CONTINENTS

and as a result, older individuals have a higher incidence of diverse types of cancers.⁶⁰ As the population lives longer each generation, we simply have more cancers of various types because the body's collection of self-generating cancerous cells is increasing, and we can no longer fight off all self-generating cancer cells. Today, it is estimated that cancer causes about one in four deaths.⁶¹ This cancer rate is true despite the probable decline in exposures to known carcinogens that resulted from increased regulation. Cancer physicians and researchers are ultimately fighting against the aging of the population.

The reality—as the trend chart above documents—is that while true asbestos-induced mesotheliomas are decreasing and will largely disappear by 2045, the rate of mesotheliomas is going to hover around 2500 per year.⁶² According to the above chart, mesotheliomas may actually increase around 2030. Thus, the pool of potential plaintiffs is likely to remain consistent for the next several decades or longer.

D. The Role of the *Any Exposure* Theory in Take-Home Litigation

Spontaneous mesotheliomas can readily become asbestos lawsuits if the testifying expert relies on the *any exposure* theory and declines to demonstrate a causative take-home dose of asbestos. Since asbestos was used in abundance in the 1970s and later, it is not difficult to find someone who can identify some contact with workplace or hobby activity asbestos. For instance, home remodeling, drywall work, and backyard brake jobs are common allegations in current litigation. Even forklift drivers, supervisors, or other office workers who never worked in direct contact with or near asbestos can allege, with or without a basis in fact, that asbestos somewhere in the plant floated into their vicinity and went home on their clothes. Tenuous connections with asbestos are almost

VOL. IX, 99 (2015), <http://www.iarc.fr/en/publications/pdfs-online/epi/sp160>; Moolgavkar, *supra* note 1, at 943 (peritoneal increase through 2050 due to “higher life expectancy of women in the US population”).

⁶⁰ See Venitt, *supra* note 41, at 637; WEINBERG, *supra* note 45, at 89-90.

⁶¹ *Cancer Facts & Figures 2015*, American Cancer Society, at 1, <http://www.cancer.org/acs/groups/content/@editorial/documents/document/acspc-044552.pdf>.

⁶² Gallardo-Garcia, *supra* note 56, at *6.

infinite if the "exposure" scenario is stretched far enough. A few examples of recent cases include the following:

- A woman claimed take-home exposure merely from visiting the home of her boyfriend, whose father was a construction worker—apparently with no allegation that she had direct contact with asbestos fibers.⁶³
- A man claimed that as a young boy prior to nine years old, he occasionally helped shake out his father's clothing, and those few experiences were enough to cause his mesothelioma.⁶⁴
- A baker in a company cafeteria claimed she got asbestos fibers on her clothing from general plant workers coming into the cafeteria to eat, and she then took fibers home, which purportedly caused her son's mesothelioma.⁶⁵

Most asbestos defense counsel could likely identify similar or even more tangential take-home exposure claims. The above instances and other exposure allegations typically alleged in today's cases do not equate to the documented and necessary doses to cause disease, which arose in the prior cases involving dusty trades, asbestos factories, and full-time insulation work. More specifically, many of the minimal fibers purportedly encountered at work would cling to the clothing in any event and likely not be available for exposure even during shaking.⁶⁶ Recent studies have documented the point that a take-home dose is orders of magnitudes lower than the workplace exposure itself.⁶⁷

⁶³ See *Millsaps v. Aluminum Co. of Am.*, No. 10-00358, 2013 WL 5544053, at *1 (E.D. Pa. Aug. 08, 2013), in 30-2 MEALEY'S LITIG. REP.: ASBESTOS 22 (February 18, 2015) (magistrate excluded plaintiff industrial hygienist testimony for lack of any dose assessment).

⁶⁴ *Francis v. Union Carbide Corp.*, 116 So. 3d 858, 859, 861 (La. App. 4 Cir. 05/08/13), in 28-8 MEALEY'S LITIG. REP.: ASBESTOS 12 (2013).

⁶⁵ *Huxley v. 20th Century Glove Corp.*, Civ. Action No. 13-C-75 KAN (Kanawha County, W.V.). (available upon request from author).

⁶⁶ *Donovan et al.*, *supra* note 23, at 725.

⁶⁷ See Jennifer Sahmel et al., *Evaluation of Take-Home Exposure and Risk Associated with the Handling of Clothing Contaminated with Chrysotile Asbestos*, 34 RISK ANAL. 1448, 1463 (2014).

How is it that in some jurisdictions even the most tenuous claims of workplace exposure leading to even more tenuous take-home exposure is likely sufficient to defeat summary judgment and proceed to trial?⁶⁸ The answer is the causation theory plaintiffs' experts universally employ in asbestos litigation—known as the *any exposure* or *each and every exposure* theory.⁶⁹ Certain experts routinely refuse to identify the actual dose received, either in the workplace or in the home, and instead, testify that every workplace or hobby asbestos exposure a person receives in his or her lifetime contributes to a mesothelioma and thus, must be considered a cause of the disease.⁷⁰

Any exposure testimony creates the facade of a causation claim encompassing an extremely wide array of products, activities, and exposures.⁷¹ According to such expert testimony, it makes no difference how minor the worker's asbestos use was or that most products were bonded in resins or other materials, and alleged exposures could have been well below today's health standards or consistent with nothing more

⁶⁸ See, e.g., *Norris v. Crane Co.*, No. B19603, 2008 WL 638361, at *7 (Cal. App. Dep't Super. Ct. Mar. 11, 2008) (stating "*any exposure*" to asbestos must be considered a cause of disease); *Buttita v. Allied Signal*, 2010 WL 1427273, at *5 (N.J. Super. App. Div. Apr. 5, 2010) (per curiam) (stating the "smallest exposure" supports a mesothelioma claim).

⁶⁹ See Mark Behrens & William Anderson, *The "Any Exposure" Theory: An Unsound Basis for Asbestos Causation and Expert Testimony*, 37 SW. U. L. REV. 479, 480 (2008).

⁷⁰ See *id.*; William Anderson, Lynn Levitan & Kieran Tuckley, *The "Any Exposure" Theory Round II—Court Review of Minimal Exposure Expert Testimony in Asbestos and Toxic Tort Litigation Since 2008*, 22 KAN. J. L. & PUB. POL'Y 1, 3 (2012).

⁷¹ See *Moeller v. Garlock Sealing Tech.*, 660 F.3d 950, 954 (6th Cir. 2011) (applying the *any exposure* theory to gaskets); *Sclafani v. Air & Liquid Sys. Corp.*, 14 F. Supp. 3d 1351, 1353 (C.D. Cal. 2014) (applying the *any exposure* theory to pumps, valves and boilers); *Comardelle v. Penn Gen. Ins. Co.*, 76 F. Supp. 3d 628, at*8 (E.D. La., 2015) (applying the *any exposure* theory to coating, sealants, and mastics); *Norris v. Crane Co.*, 2008 Cal. App. No. B196031 LEXIS 2085, at *18 (Cal. App. 2nd Mar. 11, 2008) (applying the *any exposure* theory to valve packing); *Scapa Dryer Fabrics, Inc. v. Knight*, 770 S.E.2d 334, 339 (Ga. App. 2015) (applying the *any exposure* theory to dryer felt); *Butler v. Union Carbide Corp.*, 712 S.E.2d 537, 540 (Ga. App. 2011) (applying the *any exposure* theory to phenolic molding compound); *Robertson v. Doug Ashby Bldg. Mats. Inc.*, 168 So. 3d 556, 576 (La. App. 2015) (applying the *any exposure* theory to joint compound); *Betz v. Pneumo Abex*, 44 A.3d 27, 33 (Pa. 2012) (applying the *any exposure* theory to automotive brakes).

than background exposures.⁷² Therefore, virtually all exposures tied to a defendant's product or workplace may become a source of liability. Such testimony is not supported by competent and repeated epidemiology studies demonstrating that any of those exposures have actually caused mesothelioma.⁷³

The *any exposure* theory has massive logical and scientific flaws and accordingly has been discredited and rejected by dozens of courts in recent years.⁷⁴ However, the *any exposure* theory is still employed in

⁷² See, e.g., *Betz v. Pneumo Abex*, 44 A.3d 27, 31 (Pa. 2012) (rejecting expert testimony that "each exposure" from an asbestos-containing product is a cause of disease).

⁷³ For example, the *any exposure* experts repeatedly claim brake exposures cause mesothelioma, yet, a large number of epidemiology studies consistently found no evidence that mechanic work in fact causes an excess of mesothelioma in that occupation. See David H. Garabrant et al., *Mesothelioma Among Motor Vehicle Mechanics: An Updated Review and Meta-Analysis*, ANNALS OCCUP. HYGIENE (Aug. 28, 2015), <http://annhyg.oxfordjournals.org/content/early/2015/10/05/annhyg.mev060.full?sid=37b26f78-ff28-4843-a17e-cd449e21eb00>; Francine Laden et al., *Lung Cancer and Mesothelioma Among Male Automobile Mechanics: A Review*, 19 REVS. ON ENVTL. HEALTH 39, 39 (2004); Michael Goodman et al., *Mesothelioma and Lung Cancer Among Motor Vehicle Mechanics: A Meta-Analysis*, 48 ANNALS OCCUP. HYGIENE 309, 309 (2004); Julian Peto et al., *Occupational, Domestic and Environmental Mesothelioma Risks in Britain: A Case-Control Study*, UK HEALTH & SAFETY EXEC., at x (2009). Several times, courts have rejected brake exposure cases brought on the basis of the *any exposure* theory. See, e.g., *Betz*, 44 A.3d 27; *Borg-Warner Corp. v. Flores*, 232 S.W.3d 765, 772 (Tex. 2007).

⁷⁴ The Supreme Court of Pennsylvania rejected *any exposure* testimony three times, calling the theory a "fiction" and requiring experts to prove a causative dose. *Betz*, 44 A.3d at 56-77; see *Howard ex rel. Estate of Ravert v. A.W. Chesterton, Inc.*, 78 A.3d 605, 608 (Pa. 2013); *Gregg v. V-J Auto Parts Co.*, 943 A.2d 216, 226-27 (Pa. 2007).

The Texas Supreme Court and two Texas intermediate courts considered multiple aspects of the *any exposure* theory and plaintiff arguments for it and rejected all of them. *Bostic v. Ga.-Pac. Corp.*, 439 S.W.3d 332, 338 (Tex. 2014); *Borg-Warner Corp. v. Flores*, 232 S.W.3d 765, 774 (Tex. 2007); *Ga.-Pac. Corp. v. Stephens*, 239 S.W.3d 304, 321 (Tex. App. 2007); *Smith v. Kelly-Moore Paint Co.*, 307 S.W.3d 829, 839 (Tex. App. 2010).

The Virginia Supreme Court held experts "must opine as to what level of exposure is sufficient to cause mesothelioma, and whether the levels of exposure at issue . . . were sufficient." *Ford Motor Co. v. Boomer*, 736 S.E.2d 724, 733 (Va. 2013); see *Wannall v. Honeywell Int'l*, 292 F.R.D. 26, 37 (D.D.C. 2013) (citing *Boomer*, 736 S.E.2d 724, 733), *aff'd*, 775 F.3d 425 (D.C. Cir. 2014).

The Sixth Circuit Court of Appeals rejected *any exposure* testimony four times, both in asbestos cases and otherwise. *Moeller v. Garlock Sealing Tech.*, 660 F.3d 950, 951-52 (6th Cir. 2011); *Pluck v. BP Oil Pipeline Co.*, 640 F.3d 671, 675-76, 681 (6th Cir. 2011) (discussing the effects of benzene); *Martin v. Cincinnati Gas & Elec. Co.*, 561 F.3d 439, 443 (6th Cir. 2009); *Bartel v. John Crane, Inc.*, 316 F. Supp. 2d 603, 610

some jurisdictions and pushes the general trend of asbestos cases towards more trivial and inconsequential exposure allegations of all variations, not just take-home cases.⁷⁵ This trend is largely because many of the workers with real, pre-OSHA asbestos exposures are deceased, and the number of such workers will diminish further in the future. Low-exposure, take-home lawsuits are one version of this trend. Household exposures incurred by persons alive today are increasingly minor and inconsequential. But take-home lawsuits are particularly critical to the direction of the overall litigation because they expand the base of potential plaintiffs consisting of virtually any relative or casual contact of the actual worker.⁷⁶

(N.D. Ohio 2004), *aff'd sub nom.* Lindstrom v. A-C Prod. Liab. Trust, 424 F.3d 488, 498 (6th Cir. 2005).

The Ninth Circuit Court of Appeals reversed an \$11 million trial verdict rendered in part against Scapa on the grounds that the trial judge did not perform a sufficiently rigorous *Daubert* review of expert testimony, which included plaintiff expert's reliance on the *any exposure* approach. See Estate of Barabin v. AstenJohnson, Inc., 740 F.3d 457, 464 (9th Cir. 2014), *cert. denied*, 135 S. Ct. 55 (2014) (discussing the relevant and reliable standard).

In April 2015, a New York City asbestos docket judge excluded all *cumulative exposure* testimony in brake cases. See Juni v. A.O. Smith Water Prods. 11 N.Y.S.3d 416, 432 (N.Y. Sup. Ct. 2015) (“[T]hat mesothelioma is caused only by exposures to asbestos does not dispose of the issue of whether a defendant’s product caused the mesothelioma . . . which depends on the sufficiency of the exposure, if any, to asbestos in the defendant’s product and whether that exposure is capable of causing mesothelioma.”).

Federal and state courts in Washington rejected *any exposure* testimony four times. Newkirk v. ConAgra Foods, Inc., 727 F. Supp. 2d 1006, 1032 (E.D. Wash. 2010), *aff'd*, 438 F. App'x 607 (9th Cir. 2011) (discussing *any exposure* testimony as it applies to diacetyl); Henricksen v. ConocoPhillips Co., 605 F. Supp. 2d 1142, 1166 (E.D. Wash. 2009) (discussing *any exposure* testimony as it applies to benzene); McPhee v. Ford Motor Co., 135 Wash. App. 1017, 2006 WL 2988891, at *4-5 (Wash. App. Div. 1 Oct. 16, 2006); Free v. Ametek, No. 07-2-04091-9 SEA, 2008 WL 728387, at *4 (Wash. Super. Ct., King Cty., Feb. 28, 2008).

Federal courts in Utah, California, and Delaware recently excluded *any exposure* testimony in multiple rulings. See Sclafani v. Air & Liquid Sys. Corp., No. 2:12-CV-3013, 2013 WL 2477077, at *4 (C.D. Cal. May 9, 2013); Smith v. Ford Motor Co., No. 2:08-CV-630, 2013 WL 214378, at *5 (D. Utah Jan. 18, 2013); Anderson v. Ford Motor Co., 950 F. Supp. 2d 1217, 1225 (D. Utah 2013).

⁷⁵ See, e.g., Anderson v. Saberhagen Holdings, No. 10-CV-61118, 2011 WL 605801, at *7 (E.D. Pa., Feb. 16, 2011); Norris v. Crane Co., No. B196031, 2008 WL 638361, at *7 (Cal. Ct. App. Mar. 11, 2008); Robertson v. Doug Ashby Bldg. Mats., 168 So. 3d 556, 569 (La. Ct. App. 2014); Buttita v. Allied Signal, No. BER-L-9592-02, 2010 WL 1427273, at *25 (N.J. Super. Ct. App. Div., Apr. 5, 2010).

⁷⁶ See, e.g., Campbell v. Ford Motor Co., 206 Cal. App. 4th 15, 31 (Cal. App. Dep't Super. Ct. 2012) (“potentially infinite liability”); CSX Transp. v. Williams, 608 S.E.2d

Unfortunately, the only point at which such litigation will cease will be when there are no more children or grandchildren who can claim someone in their house had contact with asbestos during their lifetime. There is no clear point where that limit will apply since bonded asbestos products were used into the 1990s, and while safely encapsulated, asbestos presently remains in many buildings. Courts need to begin using their gatekeeping function more effectively to limit the influx of these cases.

II. Court Examination of the Legal and Scientific Validity of Take-Home Cases

Courts handling asbestos cases should pay close attention to cases alleging exposure from fibers brought into a home or non-work environment. This is particularly true for any cases alleging exposure after 1972 when the modern OSHA restrictions went into effect. These cases should not be treated as typical or routine asbestos cases. Claims that familial mesotheliomas are asbestos-induced should be viewed skeptically and addressed through *Daubert/Frye* or sufficiency of evidence proceedings, or by limiting the scope of the duty requirement.

A. Imposing Duty Limitations on Take-Home Cases

Various state appellate courts have significantly restricted take-home cases by limiting the defendant's duty to persons who entered or worked on the defendant's premises.⁷⁷ These courts recognized the significant

208, 209 (Ga. 2005) (citing *Widera v. Ettco Wire & Cable Corp.*, 204 A.D.2d 306 (N.Y.S.2d 1994)) (take home duty would "expand traditional tort concepts beyond manageable bounds and create an almost infinite universe of potential plaintiffs"); *Van Fossen v. Mid Am. Energy Co.*, 777 N.W.2d 689, 698-99 (Iowa 2009) (stating "the universe of potential persons to whom the duty might be owed is unlimited").

⁷⁷ See, e.g., *Becker v. Shell Oil Co.*, No. B256407, 2014 WL 6611088, at *1-2 (Cal. Ct. App. Nov. 21, 2014); *Price v. E.I. DuPont de Nemours & Co.*, 26 A.3d 162, 172 (Del. 2011); *CSX Transp. v. Williams*, 608 S.E.2d 208, 210 (Ga. 2005); *In re Roland v. Ford Motor Corp.*, 740 N.W.2d 206, 222 (Mich. 2007); *In re New York City Asbestos Litig.*, 840 N.E.2d 115, 153 (N.Y. 2005).

risk of liability take-home cases could impose on the legal system. Take-home cases extend potential liability to the home environment and conceivably well beyond, such as the grocery store clerk, the bartender, the dry cleaner, and others whom the worker may have contacted on his way home.⁷⁸ In contrast, other states have failed to limit premises-based, take-home liability.⁷⁹ The situation for a product manufacturer is even less clear. One California court has held that product manufacturers likewise do not have a duty to home environment plaintiffs,⁸⁰ but other courts have refused to protect product manufacturers from the unlimited liability of take-home litigation on the assumption that a product manufacturer has a greater opportunity to warn than a premises defendant.⁸¹

Other courts have adopted a partial limitation on take-home litigation by restricting the defendant's duty to the time frame after which an asbestos take-home risk was medically foreseeable.⁸² For asbestos, in general, such time frame should not begin until at least the advent of OSHA in 1972 and probably not until epidemiology studies began to document actual take-home disease from certain workplace settings in the late 1970s and 1980s. Even then, foresight should be limited to exposures consistent with those identified in the published literature. In some instances, defendants have won such cases on particular motions; however, the foreseeability defense is tenuous and subject to contradictions by plaintiff experts, who routinely contend, without a basis in the historical literature, that take-home asbestos risks were known as far back

⁷⁸ See *Price*, 26 A.3d at 172-73; *CSX Transp.*, 608 S.E.2d at 210; *In re New York City*, 806 N.Y.S.2d at 153-54; *In re Roland*, 740 N.W.2d at 222-23.

⁷⁹ See, e.g., *Chaisson v. Avondale Indus.*, 947 So. 2d 171, 183-84 (La. Ct. App. 2006), *writ denied*, 954 So. 2d 145 (La. 2007); *Satterfield v. Breeding Insul. Co.*, 266 S.W.3d 347, 359-61, (Tenn. 2008); *Rochon v. Saberhagen Holdings, Inc.*, No. 58579-7-I, 2007 WL 2325214, at *2-3 (Wash. Ct. App. Aug. 13, 2007).

⁸⁰ See, e.g., *Campbell v. Ford Motor Co.*, 206 Cal. App. 4th 15, 34 (Cal. Ct. App. 2012).

⁸¹ See, e.g., *Stegemoller v. ACANDS, Inc.*, 767 N.E.2d 974, 976 (Ind. 2002); *In re Eighth Judicial Dist. Asbestos Litig.*, 872 N.E.2d 232, 234 (N.Y. 2007).

⁸² See, e.g., *Martin v. Cincinnati Gas & Elec.*, 561 F.3d 439, 444-46 (6th Cir. 2009); *Ga. Pac. v. Farrar*, 69 A.3d 1028, 1035-36 (Md. 2013); *Alcoa v. Behringer*, 235 S.W.3d 456, 460-62 (Tex. Ct. App. 2007).

as the 1930s.⁸³ Various other courts have not addressed the premises owner or product manufacturer duty.⁸⁴

Courts that have not yet considered the duty issue should first examine the lack of medical basis for these claims and the risk corporations face by allowing speculative asbestos claims to proceed to jury settings. Given that most of the real asbestos-induced, take-home cases arose from pre-1972 exposures, a full restriction on the duty in such situations is not unreasonable. Further, an outright restriction on duty beyond the immediate workplace is a straightforward standard for trial courts to apply. Such standard would cost much less in judicial resources to manage than discovery and expert motions practice, and would create a more direct path to a reasonable end to asbestos litigation. Given the future extent of spontaneously-induced disease, such a limit would not deprive deserving plaintiffs—those within the manageable and not unlimited scope of a premises owner or product manufacturer's duty—from recovery.

B. Ending Speculative Take-Home Cases by Testing the Science

In almost any tort context except asbestos, courts can and do restrict low-exposure litigation by requiring plaintiff experts to prove a causative dose consistent with epidemiology studies showing disease in exposed populations.⁸⁵ In the last ten years, various federal and state courts began

⁸³ See, e.g., *Farrar*, 69 A.3d at 1035-36; *Alcoa*, 235 S.W.3d at 460-61.

⁸⁴ See, Meghan E. Flinn, *A Continuing War with Asbestos: The Stalemate Among State Courts on Liability for Take-Home Asbestos Exposure*, 71 WASH. & LEE L. REV. 707, 720-21 (2014) (discussing the states that have addressed either the premises owner or product manufacturer duty).

⁸⁵ *McClain v. Metabolife Int'l*, 401 F.3d 1233, 1241 (11th Cir. 2005) (quoting *Allen v. Pa. Eng'g Corp.*, 102 F.3d 194, 199 (5th Cir. 1996)) ("In toxic tort cases, '[s]cientific knowledge of the harmful level of exposure to a chemical, plus knowledge that plaintiff was exposed to such quantities are minimal facts necessary to sustain plaintiff's burden."); *Wintz v. Northrop Corp.*, 110 F.3d 508, 513 (7th Cir. 1997) (citing JEROME P. KASSIRER ET AL., REFERENCE MANUAL ON SCIENTIFIC EVIDENCE 661 (Bernard D. Goldstein et al. eds., 3d ed. 2011)) (finding that courts routinely require plaintiffs to demonstrate not just some exposure, 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); *Parker v. Brush Wellman*, No. 1:08-CV02725, 2010 WL 3730924, at

to apply similar restrictions to asbestos cases, which has resulted in rejection of the *any exposure* theory as noted above.⁸⁶ However, a consistent application of this requirement in the take-home context is missing. If so tested, many, if not most, of the current take-home cases could not survive. Since it has historically been extremely difficult to produce a case of take-home mesothelioma, it should also be difficult to prove such an action in court.

Instead, some courts still allow these cases to slip through to jury trials with virtually no gatekeeping or testing of the evidence.⁸⁷ If a worker claims to have worked anywhere near asbestos in a workplace or to have seen dust in his vicinity, and the family members testify to washing clothing, sitting as a child in the worker's lap, or hugging him, the case proceeds to trial.⁸⁸ Too often there is no analysis, much less sufficient analysis, as to why such an exposure would cause disease and whether the methodology used to reach such a conclusion is reliable.⁸⁹

Courts should fairly consider *Daubert/Frye* type motions, or pre-trial sufficiency of the evidence motions, if more suitable under the jurisdiction's law, in order to address the unusual nature of take-home cases. The critical points are the experts' failure to prove a causative dose, the inconsistency of these claims with the actual scientific literature, and the

*4 (N.D. Ga. Sept. 17, 2010) (quoting *Wright v. Willamette Indus.*, 91 F.3d 1105, 1106 (8th Cir. 1996)) (applying Georgia law stating that in order to carry burden of proof, "a plaintiff must demonstrate the levels of exposure that are hazardous to human beings generally as well as the plaintiff's actual level of exposure to the defendant's toxic substance before he or she may recover"), *aff'd on other grounds*; see also *Parker v. Schmiede Mach. & Tool Corp.*, 445 F. App'x 231, 238 (11th Cir. 2011) (holding that the plaintiffs failed to prove that the defendant of knowledge of the hazards of beryllium); *Butler v. Union Carbide Corp.*, 712 S.E.2d 537, 545, 550 (Ga. Ct. App. 2011) (concurring opinion) (holding that plaintiff must prove that the harmful substance produced by the defendant actually harmed him or her).

⁸⁶ See *supra* subsection II.A; *Sherin v. Crane-Houdaille, Inc.*, 47 F. Supp. 3d 280, 292 (D. Md. 2014).

⁸⁷ *Roehling v. Nat'l Gypsum Co. Gold Bond Bldg. Prods.*, 786 F.2d 1225, 1228 (4th Cir. 1986); see cases cited and discussed *supra* notes 63-65.

⁸⁸ See Yelena Kortlarsky, *The "Peripheral Plaintiff": Duty Determinations in Take-Home Asbestos Cases*, 81 *FORDHAM L. REV.* 451, 720-21 (2012).

⁸⁹ See *Yates v. Ford Motor Co.*, No. 5:12-CV-752-FL, 2015 WL 4274588, at *6 (E.D.N.C. June 28, 2015) (offering a very instructive roadmap to the flaws and errors in expert testimony attempting to tie low-level exposures to mesothelioma without the supporting literature or dose assessment).

failure of these experts to distinguish spontaneously-caused mesothelioma from minimal exposure situations. Given the increasing role of spontaneous mesotheliomas, plaintiffs' experts should not be allowed to make the circular argument that there was asbestos exposure and therefore the disease is asbestos-caused. These are not asbestos cases. They are cancer cases, and the role of asbestos must be proven and not assumed.

Conclusion

The future of asbestos litigation largely hinges on the willingness of courts to address the take-home and other minimal exposure cases that have no proven merit in science. Mesotheliomas are not disappearing and will continue at a constant or increasing level for many more years. Low-level, background, and other meaningless asbestos exposures are so widespread in the population that the *any exposure* theory can convert most current and future spontaneous mesotheliomas into asbestos cases, including take-home cases.

The judicial response should be to apply more rigorous gatekeeping functions in these cases. The courts that have imposed duty restrictions in take-home litigation or rejected *any exposure* testimony are successfully increasing such gatekeeping functions. However, other courts continue to allow asbestos cases to proceed on the most minimal causation evidence and without meaningful limitations. Today's take-home cases deserve stringent scrutiny as they likely can result in scientifically unwarranted verdicts for cancers that have no different causation basis than thousands of others occurring in our aging population.