

Hormesis and toxic torts: traditional torts and claims for subclinical harm

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Professor Marchant presents a fascinating analysis of the way in which hormesis might be applied in toxic tort cases. His article provides a fulsome discussion of the relevant standards that experts presenting evidence of hormesis may have to satisfy in court.

In particular, Professor Marchant's analysis shows that the standards for admission of expert testimony may shift in the context of hormesis:

The plaintiffs' experts would also likely focus on the specific facts of the case at issue, and argue that the vast majority of studies showing hormesis in animals, plants and microorganisms are not relevant to whether the toxic agent in *this* case produces hormesis in *these* individual human plaintiffs under the exposure circumstances of *this* particular case.

Marchant, *Hormesis and Toxic Torts* at 11 (emphasis in original). In other words, plaintiffs would be arguing that particular studies do not support a specific causation finding for purposes of the litigation. Such argumentation is more typical of a defendant's position.

In a traditional toxic exposure case, a plaintiff must show both that a toxicant is capable of causing the injury at issue (general causation) and that the toxicant did in fact cause the injury to the plaintiff (specific causation).² Hormesis may present an additional evidentiary burden for plaintiffs in this context.

Even more interesting may be the effects of hormesis on efforts to define within the traditional tort system more recent claims of subclinical harm. In addition to the general causation and specific causation standards that have long been relevant to traditional toxic torts, the legal system has more recently grappled with how to address low dose issues, or situations in which a physiological change can be identified, but no current harm can be directly traced to that change. Some of these discussions echo the evidentiary considerations articulated by Professor Marchant.

Medical monitoring claims, in which plaintiffs seek recovery for health monitoring after alleged harmful exposure to a hazardous substance, are one arena in which evidence of hormesis may substantially affect the legal calculus, because the exposures in medical monitoring cases typically are low-level in nature and subclinical effects are at issue.

Medical monitoring claims involve, by definition, a plaintiff with no current injury – and with no ability to show that an injury traceable to some allegedly negligent exposure will ever occur. Under traditional principles of tort law, medical monitoring claims brought in the 1960s and 1970s were routinely denied in the absence of any physical injury.³

In the 1980s and 1990s, however, several courts presented with sympathetic toxic tort plaintiffs began to be persuaded to award medical monitoring costs as a remedy for alleged environmental exposures.⁴

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²See, for example, *In re Breast Impact Litig.*, 11 F. Supp. 2d 1217, 1224 (D. Colo. 1998).

³See, for example, *Morrissy versus Eli Lilly & Co.*, 394 N.E.2d 1369, 1376 (Ill. App. Ct. 1979) (possibility of developing cancer due to DES exposure found 'an insufficient basis upon which to recognize a present injury').

⁴See, for example, *Bourgeois versus A.P. Green Indus., Inc.*, 716 So. 2d 355, 360–61 (La. 1998), *superseded by* LA. CIV. CODE ANN. art 2315 (2005); *Potter versus Firestone Tire & Rubber Co.*, 863 P.2d 795, 831 (Cal. 1993).

Indeed, the first six state supreme courts to address the issue found that medical monitoring costs could be awarded to any plaintiff who had shown exposure to a harmful substance and an ‘increased risk’ of harm.⁵ Several of these courts further recognized medical monitoring as an independent cause of action, substantially expanding its original role as remedial relief for a properly pled and proven negligence claim.⁶

The formulation provided by the Pennsylvania Supreme Court in *Redland Soccer Club versus Department of the Army* is typical:

[A] plaintiff must prove the following elements to prevail on a common law claim for medical monitoring: (1) exposure greater than normal background levels; (2) to a proven hazardous substance; (3) caused by the defendant’s negligence; (4) as a proximate result of the exposure, plaintiff has a significantly increased risk of contracting a serious latent disease; (5) a monitoring procedure exists that makes the early detection of the disease possible; (6) the prescribed monitoring regime is different from that normally recommended in the absence of the exposure; and (7) the prescribed monitoring regime is reasonably necessary according to contemporary scientific principles. Proof of these elements will naturally require expert testimony.⁷

The language used by the *Redland Soccer Club* court – discussing a ‘common law claim’ under which ‘elements’ must be proven – illustrates the manner in which courts began to accept medical

monitoring as a ‘claim,’ while ostensibly maintaining a direct connection between that claim and the ‘elements’ of exposure and negligence providing a basis for the claim. Under these standards, a court may award medical monitoring costs so long as some expert testimony supports an ‘increased risk’ of harm, even if the exposure is only marginally above ‘background’ levels, and may not ever result in physical disease.

Independent medical monitoring claims thus may substantially lower the threshold of compensable exposure (anything above ‘background’, with no requirement of any adverse effect), while simultaneously encouraging courts to apply less rigor to a plaintiff’s negligence showing, since negligence is merely one of the ‘elements’ of the medical monitoring claim, rather than the foundational tort for which medical monitoring may be one remedy. Some decisions have confused the situation by using the terms ‘remedy,’ ‘claim’ and ‘cause of action’ interchangeably.⁸

‘Lumping’ the negligence showing in with the medical monitoring claim may, indeed, have adverse medical consequences, because the court has no defined phase at which to evaluate medical alternatives proposed and to award a remedy tailored to specific plaintiff needs.⁹ When evidence of harm is already marginal,¹⁰ hormetic evidence may substantially affect the outcome of these sorts of cases.

Some courts have rejected medical monitoring claims as inconsistent with traditional tort principles. Among other things, defendants have shown that medical monitoring claims are a new back door for old-style ‘increased risk’ claims. Such increased risk of disease claims seek recovery for the present

⁵*Ayers versus Jackson Twp.*, 525 A.2d 287, 311–12 (N.J. 1987); *Hansen versus Mt. Fuel Supply Co.*, 858 P.2d 970, 979 (Utah 1993); *Potter*, 863 P.2d at 823, 824–25 (Cal. 1993); *Redland Soccer Club, Inc. versus Dep’t of Army*, 696 A.2d 137, 145–46 (Pa. 1997); *Bourgeois*, 716 So. 2d at 360–61; *Bower versus Westinghouse Elec. Corp.*, 522 S.E.2d 424, 426, 432–33 (W. Va. 1999). The New Jersey Supreme Court has subsequently amended the *Ayers* holding to require physical injury. *Theer versus Philip Carey Co.*, 628 A.2d 724, 733 (N.J. 1993) ([M]edical surveillance damages are not available for plaintiffs who have not experienced direct and hence discrete exposure to a toxic substance and who have not suffered an injury or condition resulting from that exposure and whose risk of cancer cannot be limited and related specifically and tangibly to that exposure.’).

⁶See, for example, *Redland Soccer Club*, 696 A.2d at 145–46; *Hansen*, 858 P.2d at 979; *In re Paoli R.R. Yard PCB Litig.*, 916 F.2d 829, 849 (3d Cir. 1990). Cf. *Friends For All Children versus Lockheed Aircraft Corp.*, 746 F.2d 816 (D.C. Cir. 1984) (originally recognizing concept of medical monitoring as relief for evacuated Vietnamese orphans who suffered aircraft cabin decompression and crash).

⁷*Redland Soccer Club*, 696 A.2d at 145–46 (footnote omitted).

⁸See, for example, *Bower*, 522 S.E.2d at 428–29.

⁹Considering medical monitoring to be a remedy, a New Jersey court in 2005 thus recognized the limits of the doctrine, evaluated the relevant facts, and refused to extend medical monitoring to a proposed class of Vioxx users who sought EKGs to determine if they had experienced an unrecognized myocardial infarction or other unrecognized injury. See *Sinclair versus Merck & Co.*, No. ATL-L-3771-04-MT, 2005 WL 1278364, at *7–8 (N.J. Super. Ct. Law Div. May 19, 2005) ([B]ecause medical monitoring is a remedy that ‘is not easily invoked,’ this Court declines to find the New Jersey Supreme Court would extend medical monitoring to the proposed class in this particular situation.) (footnote and citations omitted).

¹⁰See, for example, Jamie A. Grodsky, *Genetics and Environmental Law: Redefining Public Health*, 93 Cal. L. Rev. 171, 234 (noting, for example, that ‘[t]here are many barriers to treating gene expression changes as adverse effects,’ not least because ‘not all changes in gene expression imply toxicity’).

value of future physical harms based on the possibility that plaintiffs may develop certain diseases in the future. Such claims have been widely rejected as speculative,¹¹ and even courts permitting the claims have required plaintiffs to prove that their chances of getting the disease are greater than 50%, or more likely than not.¹²

Likewise, medical monitoring claims may be shown to be a new version of ‘fear of disease’ claims, which courts have allowed only under far more exacting standards than those articulated by cases in which medical monitoring claims have more recently been accepted. Fear of disease claims typically seek recovery for a plaintiff’s present fear about his or her future well being, based on the tort of negligent infliction of emotional distress. Most jurisdictions allow recovery for fear of disease, but require that the plaintiff have suffered a present physical injury or impact.¹³ Courts have stated that the rationale for requiring physical injury or impact is to ‘guarantee the genuineness’ of the claim.¹⁴

Accordingly, some courts have relied on fear of disease and related precedent to reject medical

monitoring claims.¹⁵ Other courts similarly have recognized that medical monitoring costs are most appropriately considered, if at all, as a remedy, based on traditional principles of tort law.

For example, the Sixth Circuit recently noted that it viewed medical monitoring as a remedy for a tort action and not an independent claim, explaining that ‘[i]nstead of ‘the injury in an enhanced risk claim [being] the anticipated harm itself’ and ‘[t]he injury in a medical monitoring claim [being] the cost of the medical care that will, one hopes, detect that injury’ we think it more accurate to find the increased risk of future harm is the injury in both types of cases. The difference lies in the remedy sought by the plaintiff.’¹⁶

The Michigan Supreme Court provided an even more detailed discussion, concluding:

Plaintiffs advance their [medical monitoring] claim as if it satisfies the traditional requirements of a negligence action in Michigan. In reality, plaintiffs propose a transformation in tort law that will require the courts of this state – in this case and the thousands that would inevitably follow – to make decisions that are more characteristic of those made in the legislative, executive, and administrative processes. . . . [W]e are not prepared to acquiesce in this transformation.¹⁷

Rather, the Michigan court found, a plaintiff asserting a claim for a court-supervised medical monitoring fund for ‘equitable’ relief must first establish a valid cause of action, based on a present physical injury: ‘It is a *present* injury, not fear of an injury in the future, that gives rise to a cause of action under negligence theory.’¹⁸

The U.S. Supreme Court has endorsed a similar analysis outside the common law tort context, reversing a ruling that allowed an exposed – but uninjured – asbestos plaintiff to pursue a medical monitoring claim under the Federal Employers’ Liability Act, because (1) the plaintiff, despite a ‘massive, lengthy, and tangible’ exposure, had no injury that would allow medical monitoring costs as

¹¹*Eagle-Picher Indus., Inc. versus Cox*, 481 So. 2d 517, 521, 525 (Fla. Dist. Ct. App. 1985) (rejecting claim for increased risk of cancer damages in asbestos case where plaintiff had asbestosis and stating that ‘[w]e have come to our decision that any recovery for cancer damages must await the actuality of cancer. . .’ and that ‘public policy requires that the resources available for those persons who do contract cancer not be awarded to those whose exposure to asbestos has merely increased their risk of contracting cancer in the future’). See also James A. Henderson, Jr. & Aaron D. Twerski, *Asbestos Litigation Gone Mad: Exposure-Based Recovery for Increased Risk, Mental Distress, and Medical Monitoring*, 53 S.C. L. REV. 815, 822 (2002) (‘Courts that have abolished the single-action rule have flatly rejected claims based on increased risk.’).

¹²See, for example, *Hagerty versus L & L Marine Servs., Inc.*, 788 F.2d 315, 319 (5th Cir. 1986) (holding that in accord with ‘other courts . . . a plaintiff can recover only where he can show that the toxic exposure more probably than not will lead to cancer’) (citing several cases adopting the ‘greater than fifty percent’ rule) (emphasis in original).

¹³See, for example, *Eagle-Picher Indus.*, 481 So. 2d at 528 (‘The physical injury requirement is consistent with Florida law, necessary and fair. . . . Imposing a requirement that there be a physical injury as a predicate to recovery for mental distress arising from a fear of cancer is not an arbitrary act.’) (footnotes omitted); *Rustvold versus Taylor*, 14 P.3d 675, 680–81 (Or. Ct. App. 2000) (rejecting plaintiff’s negligence claim for emotional-distress damages based on her fear of contracting Hepatitis B or HIV where plaintiff’s physical injuries had nothing to do with her claimed emotional distress).

¹⁴See, example, *Eagle-Picher Indus.*, 481 So. 2d at 529 (‘[T]he physical injury requirement will insure that the claims permitted are only the most genuine.’).

¹⁵See *Hinton ex rel. Hinton versus Monsanto Co.*, 813 So. 2d 827, 829 (Ala. 2001) (relying on *Pfizer, Inc. versus Farsian*, 682 So. 2d 405, 407 (Ala. 1996)); *Wood versus Wyeth-Ayerst Labs.*, 82 S.W.3d 849, 852–53 (Ky. 2002) (relying on *Capital Holding Corp. versus Bailey*, 873 S.W.2d 187, 195 (Ky. 1994)); *Abusio versus Consol. Edison Co. of N.Y., Inc.*, 656 N.Y.S.2d 371, 372 (N.Y. App. Div. 1997); *Broich versus Nabisco, Inc.*, slip op. (N.Y. Sup. Ct. May 16, 2002) (Werner, J.) (unpublished decision).

¹⁶*Sutton versus St. Jude Med. S.C., Inc.*, 419 F.3d 568, 572 (6th Cir. 2005) (citation omitted; brackets in original).

¹⁷*Henry versus Dow Chem. Co.*, 701 N.W.2d 684, 692 (Mich. 2005).

¹⁸*Id.* at 689 (emphasis in original).

a traditional element of damages; and (2) allowing recovery for medical monitoring costs in the absence of physical injury would create a number of 'systemic harms' for courts, the tort system, and society. Three state supreme court decisions issued in 2001 and 2002 adopted this rationale to reject tort-based medical monitoring claims.¹⁹

In this legal climate, acceptance of hormesis is likely to face a uphill battle with lawyers and judges who may view the concept as unnecessarily complicating an already Byzantine situation. In the right circumstances, however, hormesis could provide an additional window into assessing responsibility for the subclinical effects that have begun to arrive in court.

¹⁹*Metro-North Commuter R.R. Co. versus Buckley*, 521 U.S. 424, 428, 439, 442–44 (1997). See *Badillo versus Am. Brands, Inc.*, 16 P.3d 435, 440–41 (Nev. 2001) (finding that Nevada does not recognize a cause of action for medical monitoring because (i) '[a]ltering common law rights, creating new causes of action, and providing new remedies for wrongs is generally a legislative, not a judicial, function,' and (ii) '[e]xposure to environmental tobacco smoke raises many complex issues of legal causality...'); *Hinton*, 813 So. 2d at 829–30 (rejecting medical monitoring claims related to PCB exposure because (i) 'Alabama law has long required a manifest, present injury before a plaintiff may recover in tort,' (ii) 'recognizing a cause of action based upon nothing more than an increased risk . . . would result in . . . cases [being decided] based upon nothing more than speculation and conjecture,' and (iii) the reasons stated in *Metro-North*); *Wood*, 82 S.W.3d at 852, 857–58 (refusing to establish medical monitoring fund because (i) Kentucky law had 'consistently held that a cause of action in tort requires a present physical injury to the plaintiff,' (ii) the issue presents 'significant public policy problems' and matters 'best left to the legislatures,' and (iii) the reasons stated in *Metro-North*).