

REPORTED

IN THE COURT OF SPECIAL APPEALS

OF MARYLAND

No. 1934

September Term, 2002

GIANT FOOD, INC., ET AL.

v.

TIVEY BOOKER

Sonner,
Barbera,
Sharer,

JJ.

Opinion by Sharer, J.

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In this workers' compensation case appellants, Giant Food, Inc., and Lumbermen's Mutual Casualty Company, ask us to find that the Circuit Court for Prince George's County erred by denying their motion for judgment, and their motion for judgment notwithstanding the verdict.

It is undisputed that on December 15, 1998, appellee/claimant, Tivey L. Booker, was exposed to Freon gas while working as an employee at Giant Food. It is also undisputed that approximately fourteen months after his exposure, Booker was diagnosed with adult on-set asthma. What is disputed, however, is whether the accidental exposure to Freon caused his asthma.

Booker filed a claim with the Maryland Workers' Compensation Commission ("the Commission") for permanent partial disability, alleging that his exposure to the Freon gas caused his asthma. The Commission denied the claim on the basis that (1) the claimant sustained no permanent partial disability and (2) no causal connection existed between the accidental exposure of Freon and appellee's alleged disability.

Booker sought *de novo* judicial review in the circuit court of the decision of the Commission. The case was submitted to the jury on issues and the jury found favorably to Booker on each issue; that is, the jury found both causation and permanent partial disability.

At the close of Booker's case, and again at the close of all the evidence, appellants moved for judgment on the basis that there

was no expert testimony to sufficiently establish the cause of Booker's asthma. Appellants also argued that the testimony of Booker's expert witness lacked a factual basis supporting his causation theory. The court reserved on appellants' motion.

Subsequent to trial, appellants filed a timely motion for judgment notwithstanding the verdict. The court denied the motion JNOV, thus effectively denying the earlier motion for judgment upon which it had reserved a ruling.

Appellants have raised two questions for our review, which we have rephrased for clarity:¹

Was there sufficient evidence for the trial court to submit this case to the jury on the issue of medical causation?

We answer "no," and shall therefore reverse. We shall hold

¹ As set out in their brief, appellants' two questions were:

1. Did the Trial Court err in denying Appellants' Motions for Judgment (at the close of the Appellee's case and at the close of all evidence) and Motion for Judgment Notwithstanding the Verdict where the Appellee failed to produce sufficient evidence at trial on the issue of causal relationship of the alleged permanent partial disability to the December 15, 1998 accidental injury?

2. Should the Trial Court's ruling that the determination of the percentage [of] Appellee's permanent partial disability must first be decided by the Commission be affirmed where the Commission's original Order as to causal connection rendered [its] finding of percentage of disability moot?

We find, and the parties concede, that appellants' second question is moot in light of the stipulation between the parties that, if this Court "affirms the Trial Court on the issue of causation, then it is agreed that the Claimant, Tivey L. Booker, sustained a 15% permanent partial disability as found by the jury so that the Cross-Appeal becomes moot."

that, although Booker's medical expert was qualified to render an opinion, as we shall discuss, *infra*, the expert's testimony lacked a sufficient factual basis, and the opinion was not the product of reliable principles and methods.

FACTUAL and PROCEDURAL HISTORY

During the course of his employment at Giant Food, Booker was exposed to Freon² gas on December 15, 1998. At the time of the accidental exposure, Booker was thirty-eight years old and worked as a janitor at Giant Food's produce warehouse in Landover, Prince George's County. As part of his job, he also served as a member of Giant Food's emergency response team/fire brigade at the warehouse.³

On the date of the accident, a refrigerant leak occurred on site at Giant Food's ice plant. A call went over the P.A. system for assistance by the fire brigade. Booker responded to the call. Upon entering the ice plant, Booker saw "two guys that [were] face down, motionless. And one guy was whirling around like off balance and what not." Booker noticed that it was "very foggy" inside the ice plant. Because he became dizzy and off-balance, he left the room to go outside and get some oxygen. Once outside, he continued to feel dizzy and felt like he might pass out. Nevertheless,

² Freon (or Freon 22) is the registered name for a chemical refrigerant otherwise known as Chlorodifluoromethane, manufactured by E.I. du Pont de Nemours & Co., Inc.

³ Apparently, appellant Giant Food had never trained Booker in chemical emergency response.

Booker went back into the ice plant and, with the help of a co-worker, dragged the two men out of the building because he felt as though their lives were at risk. The quantity of Freon that Booker inhaled is not known, although apparently he spent about thirty seconds in the ice plant on both of his rescue attempts.

Following the incident, an ambulance took Booker to Prince George's Hospital. His presenting symptoms included a headache, dizziness, and uneasy breathing. Booker was placed on oxygen and remained at the hospital overnight. After his discharge on the following day, he continued to feel weak and had a headache. Several days later, Booker returned to the emergency room with the same symptoms. Over the ensuing few weeks, Booker made a total of three or four visits to the emergency room of Prince George's Hospital, presenting with the same symptoms - headaches, dizziness, and shortness of breath at times.

Meanwhile, on December 16, 1998, the day after the accident, the U.S. Department of Labor's Occupational Safety and Health Administration ("OSHA") sent inspectors to visit the Landover warehouse. The inspectors went to the warehouse because "[a] refrigerant leak had occurred on site at the company's ice plant exposing six Giant employees as well as employees of the Prince George's County Fire Department to freon."⁴ The OSHA inspectors

⁴ It is not known if any of the other Giant employees, or the fire department officers involved in the accident, developed asthma.

indicated that the injuries were a result of the elevated Freon, and a deficiency of oxygen (as a result of the Freon displacing the oxygen). The inspectors were unable to detect any other chemical agents, but specifically noted in an "Inspection Narrative," filed after their visit, that "Formation of phosgene gas was ruled out by Giant personnel and this inspector due to the distance from the ice makers and more importantly by the fact that the water heater is electric and does not have a pilot light."

On January 13, 1999, Booker presented for evaluation at the Johns Hopkins Center for Occupational and Environmental Health, having been referred by Kemper Insurance.⁵ Dr. Brian Schwartz, MD., MS., evaluated Booker and wrote the following about the examination:

HISTORY: Mr. Booker presents for evaluation today. His chief complaint is weakness. This 38 year old male was in his usual state of health until December 15, 1998, when a rescue at Giant Foods was attempted, and during the rescue attempt he was exposed to Freon refrigerant on 2 separate occasions for approximately 30 seconds each. His complaints include a headache 2 times per week, that he describes as being a tension type headache that lasts somewhere between 30 minutes and 1 hour. He also complains of a dry throat, especially with the heater on. Mr. Booker is in good health and taking no medications, he has no allergies and no past medical history of significance. He underwent an elective hemorrhoidectomy on December 31, 1998. The patient currently denies any chest pains,

⁵ It is not clear from the record the interplay between Kemper Insurance and appellants Giant Food and Lumbermen's Mutual Casualty Company.

shortness of breath, abdominal pain or neurologic symptoms, other than those mentioned above.

PHYSICAL EXAMINATION: His blood pressure and vital signs are normal. The patient's neurologic exam is non-focal and within normal limits. Lungs are clear with good air movement. The rest of the physical exam is within normal limits. No records were provided for evaluation at this time.

In answer to the questions posed, Mr. Booker is capable of working in his regular job now without restrictions. His current chronic symptoms of headache and weakness cannot be explained by the acute exposure that occurred over one month ago. The exposure in question is not likely to have resulted in any chronic problems. No further medical care is needed at this time. All the patient's questions were answered. He was urged to seek follow up care if any further problems arose.

Booker returned to work in a full-time, unrestricted capacity. In February 1999, Booker was once again called out with the fire brigade to report to a chemical spill caused by a hydraulic leak in a fork lift. Employees placed a powder-based absorbing material on the floor which began accumulating dust, and Booker started coughing. He received medical treatment at the Giant Food clinic for employees injured on the job and missed one day of work, but reported no other symptoms.

Booker visited Dr. Barry Redjaee in early March 2000, upon referral of his primary care physician, Dr. Rointan Farahi-Far. Dr. Redjaee is the medical director at Southern Maryland Hospital and

the director of the pulmonary department and the asthma clinic.⁶ Dr. Redjaee became Booker's treating physician with respect to the asthma related symptoms. Booker had been seen by Dr. Farahi-Far in 1999 and early 2000, and had been diagnosed with asthma, and placed on two different inhalers and a Singular tablet. Dr. Redjaee conceded that he had not reviewed any medical records created between January 1999 and March 2000 from Dr. Farahi-Far's office, and did not know when Booker first began complaining of asthma symptoms. When Booker visited Redjaee in March 2000, he "gave no previous history of any pulmonary problems."⁷ Dr. Redjaee diagnosed Booker as having adult on-set asthma. A pulmonary function test to measure Booker's lung capacity showed that he had "mild to moderate airflow obstruction with a reversible component." According to Dr. Redjaee, "[b]asically that means that he had evidence of asthma which got better after [he took] the broncho dilator medicine, which is a medicine that opens the lungs up."

Between March 2000 and April 2002, Dr. Redjaee saw Booker on a total of eleven occasions. Booker's condition improved with the inhalers and steroid tablets, and a subsequent pulmonary function

⁶ Dr. Redjaee is a board certified pulmonary physician and has been practicing pulmonary medicine since 1990. He received his training at the George Washington University Hospital. He published one article during his fellowship training, but it is unclear from the record whether the article related to pulmonary medicine, or more specifically, to asthma.

⁷ Booker testified at trial that he had never been diagnosed or treated for asthma before December 15, 1998. Booker had played high school football and had served in the U.S. Army. He also owned two dogs, but was not allergic to either.

test revealed that he had "mild airflow obstruction, which is just mild asthma which was improved when [compared] to the prior pulmonary function test."

As a result of the accidental exposure to the Freon, Booker filed a claim for benefits with the Maryland Workers' Compensation Commission pursuant to Title 9 of the Labor and Employment Article of the Maryland Code. Effective February 17, 1999, the Commission awarded temporary total disability benefits and medical expenses. Booker sought additional benefits in the form of permanent partial disability benefits. The Commission held a hearing on October 3, 2001, and denied the permanent partial benefits on October 10, 2001, by writing:

Hearing was held in the above claim at Hyattsville, Maryland on October 3, 2001, on the following issue:

Nature and extent of disability

The Commission finds that as the result of the accidental injury of December 15, 1998, the claimant was paid compensation for temporary total disability from December 16, 1998 to January 12, 1999. *The Commission finds on the issue presented that the claimant sustained no permanent partial disability to the lungs or chest, no causal connection regarding accidental injury and permanent partial disability - any permanent partial disability is due to pre-existing conditions.*

(Emphasis added).

Booker sought *de novo* judicial review in the circuit court pursuant to §§ 9-737 and 9-745 of the Labor and Employment Article.

See Md. Code Ann., Lab. & Empl. §§ 9-737, 9-745 (Repl. Vol. 1999 & Supp. 2002). Trial was held before a jury on August 8, 2002, and the jury returned a verdict in favor of Booker, finding both causation and permanent partial disability.

At the close of Booker's evidence, and at the close of all the evidence, appellants moved for judgment pursuant to Md. Rule 2-519. Appellants conceded that Booker had asthma, but moved for judgment on the basis that Booker's medical expert, Dr. Redjaee, did not provide a sufficient factual basis for concluding, to a reasonable degree of medical probability, that the accidental exposure to Freon caused the asthma. The appellants argued several positions, but placed their greatest emphasis on the fact that Dr. Redjaee conceded that he had never read about, nor knew of, asthma being caused by exposure to Freon. The court reserved a ruling on both motions.

Following the jury verdict in favor of Booker, appellants filed a timely motion for judgment notwithstanding the verdict (or in the alternative a motion for new trial). On September 23, 2002, the court denied appellants' motions.

STANDARD of REVIEW

We review the denial of a motion for judgment and a motion for judgment notwithstanding the verdict ("JNOV") under the same appellate lens. *Suburban Hosp., Inc. v. Kirson*, 128 Md. App. 533, 542 (1999) (citations omitted), *rev'd on other grounds*, 362 Md. 140

(2000). In order to survive a motion for judgment (and JNOV), a plaintiff has the burden of producing sufficient evidence to send the case to a jury for a resolution of fact. See *American Airlines Corp. v. Stokes*, 120 Md. App. 350, 353 (1998). As this Court explained in *General Motors Corp. v. Bark*, 79 Md. App. 68 (1989):

If the claimant loses before the Commission and then appeals to the circuit court, the ... claimant has the burden of producing a *prima facie* case before the trial court, lest he suffer a directed verdict against him, just as he, as the original proponent, had that same burden before the Commission.... The claimant has, moreover, the same burden to persuade the trial court by a preponderance of the evidence that his claim is just as he had to persuade the Commission in the first instance.

Id. at 79-80 (quoted with approval in *Stokes, supra*, 120 Md. App. at 353); see also Md. Code Ann., Lab. & Empl. § 9-745(b) (Repl. Vol. 1999) ("In each court proceeding under this title: (1) the decision of the Commission is presumed to be *prima facie* correct; and (2) the party challenging the decision has the burden of proof.").

Given a plaintiff's burden of production, he or she may fend off a motion for judgment by producing legally sufficient evidence to send the case to the jury. In *Jabcobs v. Flynn*, 131 Md. App. 342, 353-54 (2000), *cert. denied*, 359 Md. 669 (2000), this Court wrote the following about the standard of review for such motions.

A party is entitled to a judgment not withstanding the verdict (JNOV) [and judgment] when the evidence at the close of the case, taken in the light most favorable to the

nonmoving party, does not legally support the nonmoving party's claim or defense. See *Bartholomee v. Casey*, 103 Md. App. 34, 51 (1994), *cert. denied*, 338 Md. 557 (1995). In reviewing the denial of a JNOV, we "must resolve all conflicts in the evidence in favor of the plaintiff and must assume the truth of all evidence and inferences as may naturally and legitimately be deduced therefrom which tend to support the plaintiff's right to recover....'" *Houston v. Safeway Stores, Inc.*, 346 Md. 503, 521 (1997) (quoting *Smith v. Bernfeld*, 226 Md. 400, 405 (1961)). If the record discloses any legally relevant and competent evidence, however slight, from which the jury could rationally find as it did, we must affirm the denial of the motion. See *Franklin v. Gupta*, 81 Md. App. 345, 354, *cert. denied*, 313 Md. 303 (1990). If the evidence, however, does not rise above speculation, hypothesis, and conjecture, and does not lead to the jury's conclusion with reasonable certainty, then the denial of the JNOV was error. See *Bartholomee*, 103 Md. App. at 51. Nevertheless, "[o]nly where reasonable minds cannot differ in the conclusions to be drawn from the evidence, after it has been viewed in the light most favorable to the plaintiff, does the issue in question become one of law for the court and not of fact for the jury." *Pickett v. Haislip*, 73 Md. App. 89, 98 (1987), *cert. denied*, 311 Md. 719 (1988).

Id. at 353-54 (parallel citations omitted).

DISCUSSION

As we have noted, appellants concede that Booker has adult on-set asthma. The current dispute is whether Booker's exposure to Freon on December 15, 1998, "caused" his asthma. At trial, Dr. Redjaee testified (via a videotaped deposition) that the exposure caused the asthma. His opinion was offered in response to Booker's

counsel, who asked Dr. Redjaee if he had "an opinion based on a reasonable degree of medical probability as to whether his current pulmonary symptoms are related to the event at Giant Food, which occurred on December 15, 1998?"⁸ To that question, Dr. Redjaee responded, "Yes, based on my evaluation of him and the history and physical, I have a good degree of probability that this was related to that incident that happened to him." The crux of appellants argument is that Dr. Redjaee did not provide an adequate factual basis, nor did he rely on reliable principles and methods, to support his opinion. In other words, appellants posit that simply because an expert says "because I think so," or "because I say so," does not necessarily mean that a court must accept the opinion.

The Need for Expert Testimony

When a complicated issue of medical causation arises, expert testimony is almost always required. *S.B. Thomas, Inc. v. Thompson*, 114 Md. App. 357, 382 (1997); *Stokes, supra*, 120 Md. App. at 359. The parties agree that the issue here is a "complicated medical question." Booker, however, relying on *S.B. Thomas*, argues that expert testimony was not needed in this case. In *S.B. Thomas*. this Court went to great lengths to synthesize prior appellate case

⁸ A minor dispute arose at this point in the deposition between appellants' counsel and claimant's counsel, regarding whether Dr. Redjaee's testimony had to be to a reasonable degree of medical "probability" or "certainty." For what it is worth, we note that Maryland law has used both phrases interchangeably. *Mayor & City Council of Baltimore v. Theiss*, 354 Md. 234, 261-62 (1999) (Rodowsky, J. concurring); see also JOSEPH F. MURPHY, JR., MARYLAND EVIDENCE HANDBOOK § 1404, at 543 (3d ed. 1999).

law regarding whether an issue of causation required expert medical opinions. Judge Moylan, who authored the opinion, wrote:

To the extent to which we can distill any general wisdom out of the case law, it seems to be this. A genuine jury issue as to the causal relationship between an earlier injury and a subsequent trauma may sometimes be generated, even in the absence of expert legal testimony, when some combination of the following circumstances is present: 1) a very close temporal relationship between the initial injury and the onset of the trauma; 2) the manifestation of the trauma in precisely the same part of the body that received the impact of the initial injury; 3) as in *Schweitzer v. Showell*, [19 Md. App. 537 (1974)] some medical testimony, albeit falling short of a certain diagnosis; and 4) an obvious cause-and-effect relationship that is within the common knowledge of laymen.

Conversely, the causal relationship will almost always be deemed a complicated medical question and expert medical testimony will almost always be required when one or more of the following circumstances is present: 1) some significant passage of time between the initial injury and the onset of the trauma; 2) the impact of the initial injury on one part of the body and the manifestation of the trauma in some remote part; 3) the absence of any medical testimony; and 4) a more arcane cause-and-effect relationship that is not part of common lay experience (the ileitis, the pancreatitis, etc.)

When all is said and done, we are perhaps reduced to a truism: the stronger the case for the causal connection even absent expert medical testimony, the lesser the need for such testimony; the weaker the non-medical case for the causal connection, the greater the need for such testimony. There is more involved, of course, than a simply inverse proportion between the strength of the non-medical-expert case of causation and the need

for expert medical testimony. Some questions of causation might involve medical knowledge so recondite that expert testimony would always be required. Other questions of causation would not. There can be no hard and fast rule controlling all cases.

Id. at 381-383 (footnote omitted).

There are examples in the extreme. A claimant who was struck by a vehicle being operated by a fellow employee, while at his place of work, and who is immediately treated for a fracture of leg bones, need not necessarily provide expert medical evidence to support the causation conclusion. Occupational diseases, infections, and other harm to internal tissue or organs, however, present a more esoteric question. A determination of causation in the latter category of cases by a jury of laypersons is less possible without the aid of medical evidence. It is particularly so, as here, when there has been a significant passage of time between the exposure and the onset of the disease and where there is lacking an obvious cause and effect relationship that is within the common knowledge of laymen. We have said

an expert's testimony to a reasonable degree of probability is not always essential to prove causation; rather a plaintiff's burden of proof will be satisfied by expert testimony 'with respect to causation as to what is possible if, in conjunction with that testimony, there is additional evidence of causation introduced at trial that allows the finder of fact to determine that issue'.

Jacobs v Flynn, supra, 131 Md. App. at 355 (quoting *Karl v. Davis*, 100 Md. App. 42, 52 (1994)). Our review of the record does not

reveal such "additional evidence of causation."

Booker, however, relying on *S.B. Thomas*, argues that expert testimony was not needed in this case because of the temporal proximity between the accident and on-set of injury, and by suggesting that there was an obvious cause and effect relationship. We disagree. A medical diagnosis of asthma, and its antecedent cause, requires expert testimony. We think that a cause-and-effect evaluation of adult on-set asthma is no less complicated than the claimant's back injury in *Stokes*, and the claimant's herniated disc in *S.B. Thomas*.

The contrasting medical testimony in the instant case was provided by Dr. Philip Witorsch, M.D., who testified that even medical doctors do not understand the cause of adult on-set asthma in 30-40% of such cases (i.e., the development of asthma is "idiopathic"). Such an arcane cause-and-effect relationship is beyond the ken of average laypersons. *Wood v. Toyota*, 134 Md. App. 512, 518 (2000), *cert. denied*, 362 Md. 189 (2000). Moreover, under the principles set forth in *S.B. Thomas*, we conclude that the fourteen-month delay between the exposure and the definitive diagnosis by Dr. Redjaee requires expert testimony regarding causation; especially when Booker did not complain of asthma-type symptoms on January 13, 1999 (less than one month after the incident) when he was seen at the Johns Hopkins clinic. Furthermore, Booker's concession of this being a complicated

medical question also supports the need for expert testimony. We do not find a close temporal relationship between the incident and the onset of the asthma. Accordingly, Booker, the party who bore the burden of production to overcome the prima facie correct determination of the Commission, was required to present expert testimony in order to survive the appellants' motion for judgment. *S.B. Thomas, supra*, 114 Md. App. at 385; see also JOSEPH F. MURPHY, JR., MARYLAND EVIDENCE HANDBOOK § 1401, at 536 (3d ed. 1999).

Basis of Expert Testimony

Maryland Rule 5-702 governs testimony by experts. Rule 5-702 provides:

Expert testimony may be admitted, in the form of an opinion or otherwise, if the court determines that the testimony will assist the trier of fact to understand the evidence or to determine a fact in issue. In making that determination, the court shall determine (1) whether the witness is qualified as an expert by knowledge, skill, experience, training, or education, (2) the appropriateness of the expert testimony on the particular subject, and (3) whether a sufficient factual basis exists to support the expert testimony.

Md. Rule 5-702 (2002). The rule itself delineates three factors a court must evaluate for the admission of expert testimony: (1) an expert must be qualified (Rule 5-702(1)); the expert testimony must be appropriate for the particular subject (Rule 5-702(2)); and (3) a sufficient factual basis must exist to support that testimony

(Rule 5-702(3)).⁹

Because appellants made no objection to the qualifications of Dr. Redjaee, and concede his expertise, we need focus on only the second and third factors.¹⁰ Notably, we begin by emphasizing that simply because a witness has been tendered and qualified as an expert in a particular occupation or profession, it does not follow that the expert may render an unbridled opinion, which does not otherwise comport with Md. Rule 5-702. "[N]o matter how highly qualified the expert may be in his field, his opinion has no probative force unless a sufficient factual basis to support a rational conclusion is shown." *State Dep't of Health v. Walker*, 238 Md. 512, 520 (1965) (citations omitted) (quoted in *Beatty v. Trailmaster Prod., Inc.*, 330 Md. 726, 741 (1993)). An expert's opinion testimony must be based on a adequate factual basis so that it does not amount to "conjecture, speculation, or incompetent evidence." *Uhlik v. Kopec*, 20 Md. App. 216, 223-24 (1974), *cert. denied*, 271 Md. 739 (1974). Furthermore, the testimony must also

⁹ "The decision to admit or exclude "expert" testimony is within the broad discretion of the trial court and that decision will be sustained on appeal unless it is shown to be manifestly erroneous.'" *Wood, supra*, 134 Md. App. at 520 n.8 (quoting *Troja v. Black & Decker Mfg. Co.*, 62 Md. App. 101, 110 (1985) (citation omitted), *cert. denied*, 302 Md. 471 (1985)). A trial court's expert testimony determination may be reversed if predicated upon "an error of law or some serious mistake, or if the trial court has clearly abused its discretion." *Raithel v. State*, 280 Md. 291, 301 (1977) (citations omitted).

¹⁰ At trial (via the prior videotaped deposition) Booker tendered Dr. Redjaee as an expert as "a medical doctor, but also with a specialty in pulmonary medicine." After a short *voir dire*, appellants did not object to Redjaee's qualifications as an expert in the fields of general medicine, with a specialty in pulmonary medicine.

reflect the use of reliable principles and methodology in support of the expert's conclusions. *Wood, supra*, 134 Md. App. at 523.

This Court, in an opinion authored by Chief Judge Murphy, recently had the opportunity to interpret the second and third factors of Rule 5-702 in *Wood v. Toyota Motor Corp., supra*, 134 Md. App. 512, *cert. denied*, 362 Md. 189. In *Wood*, the plaintiff alleged that she received chemical burns to her face when an air bag deployed on the driver's side of the vehicle after an accident. *Id.* at 515. The plaintiff had identified an expert witness who would testify that a design defect in the air bag caused her injury. *Id.* Defendants filed a motion *in limine* to exclude the expert's testimony, which was granted on the basis that the expert lacked sufficient qualifications and an adequate factual basis to form such an opinion. The trial court also granted defendants' motion for summary judgment, as no other expert testimony existed.

On appeal, we affirmed, finding that an adequate factual basis did not exist for the expert's testimony, and noted that it is the court, not the expert, that determines "whether there exists an adequate factual basis for the opinion at issue." *Id.* at 523 (citing *Madden v. Mercantile-Safe Deposit & Trust Co.*, 27 Md. App. 17, 44 (1975)). Regarding the appropriateness of the testimony, we concluded that the expert's testimony did not qualify because it was not "the product of reliable principles and methods." *Id.* at 523. This Court found that while Rule 5-702 does not specifically

state that the expert testimony must be "the product of reliable principles and methods" (i.e., phraseology taken from Fed. R. Evid. 702), Maryland case law interpreting Rule 5-702 requires such a foundation. *Id.* at 523 n.13.¹¹ Our finding in *Wood* in this regard is likewise consistent with the second factor of Md. Rule 5-702, which requires that the issue before the court be an appropriate subject of expert testimony. The similarities between Md. Rule 5-702 and Fed. R. Evid. 702 have been discussed by Prof. Lynn McLain. LYNN MCLAIN, MARYLAND RULES OF EVIDENCE 165 (2d ed. 2002) ("The second factor [of current Fed. R. Evid. 702] echoes the concerns of the second factor in the Maryland Rule."); see also MURPHY, MARYLAND EVIDENCE HANDBOOK, *supra*, § 1405(B)(2), at 68 (Cum. Supp. 2002). In *Wood*, we concluded that "[the expert's] theory provided no rational explanation for why the size or location of the vent holes had anything to do with the injuries that appellant sustained." *Id.* at 524. Therefore, "No trier of fact could conclude that vent holes in an air bag caused an injury merely because an expert said that they did." *Id.* at 523-24.

Turning to the merits of the case *sub judice*, we must determine whether a sufficient factual basis existed for Dr. Redjaee's testimony, and if his testimony was the product of

¹¹ Maryland courts still adhere to the *Reed-Frye* "general acceptance" standard (see *Reed v. State*, 283 Md. 374 (1978); *Frye v. United States*, 293 F. 1013 (D.C. Cir. 1923)). Md. Rule 5-702 is not intended to overrule that standard, which has been left to case law for development. See Committee Note to Md. Rule 5-702 (2002).

reliable principles and methods. In arguing that Booker did not produce legally sufficient evidence because there was no basis for Dr. Redjaee's testimony, appellants point out that: (1) Booker was exposed to Freon on December 15, 1998, but that no other chemicals were released (as evidenced by the OSHA investigation); (2) Booker was subsequently exposed to chemicals of an unknown nature and composition in February 1999; (3) Booker was not complaining of shortness of breath or chest pains or any other symptoms indicative of asthma as of January 13, 1999 (during his visit to Johns Hopkins); (4) Dr. Redjaee did not know what chemicals Booker was exposed to on December 15, 1998; (5) Dr. Redjaee did not know what, if any, chemicals Booker was exposed to between December 15, 1998, and his first visit to the office in early March 2000; (6) adult on-set asthma often has no known cause; and most importantly (7) Dr. Redjaee could not point to any medical or scientific study demonstrating a causal connection between Freon inhalation and asthma.

We agree with appellants. Despite having been qualified as an expert in pulmonary medicine, Dr. Redjaee's testimony regarding the cause-and-effect relationship does not rise above the level of mere speculation or conjecture. *See Wood, supra*, 134 Md. App. at 521-27. A review of Dr. Redjaee's deposition testimony highlights the absence of an adequate factual basis, as well as an unsupportable methodology for his conclusion, as demonstrated by the following

exchange:

Q. [BOOKER'S COUNSEL] And what, if anything, in that newspaper article, Plaintiff's Exhibit 4, did you see that needed to be investigated as you went through your investigation in this case?

[APPELLANTS' COUNSEL]: Objection.

[DR. REDJAE]: Again, to me the exact event was unclear exactly what happened to him and in this article they raised a couple of issues as to the gases that were released, whether it was Freon or phosgene and what kind of effects that those things would have had on the people that had been involved.

Q. [BOOKER'S COUNSEL] For the purpose of your final determination; that is to say the cause and effect of the symptoms that he has and the event, is it important or not important to you exactly what the compound was in the Giant ice house that he was exposed to?

A. [DR. REDJAE]: To me, it would not necessarily be that important because I go just not by what the pure agent was there. I am not sure what it was. I don't think anybody can tell me what it was.

As a clinician who treats a patient if somebody was there actually at the time, at that moment, could have measured what it was, it would have been different.

After the event I'm not sure if it's relevant to me. I usually go by my findings and I go by the history and I have to kind of put everything together. So I'm not -- still not clear exactly what happened there. So if it was a clear cut agent that we knew for sure what it was, it would help. But I don't -- I think things are not very clear cut to me.

Q. [BOOKER'S COUNSEL] For purposes of your determination, number one, that he has asthma now and, number two, the pulmonary impairment from this event, is that clear to you?

A. [BOOKER] Yes.

On cross-examination by appellants' counsel, the following questions and answers took place:

Q. [APPELLANTS' COUNSEL] Now, in terms of Freon as an agent for causing asthma, do you have any literature or any experience with incidents where Freon has been shown to cause asthma.

A. [DR. REDJAE] No. But my research was limited to looking up some textbooks and things like that and I did not see Freon causing asthma in those textbooks.

Q. So in the textbooks you looked in, you could not find that Freon did cause asthma, correct?

A. That's correct.

* * *

Q. Okay. Were there any symptoms or what symptoms did you look at in the emergency room reports that you believe are consistent with Mr. Booker developing asthma as a result of this incident?

A. I didn't find anything other than the fact that he went there [i.e., to the emergency room] as a result of the exposure to what they call a chemical irritant.

There was no specific mention of any agent or any wheezing or anything like that. So I did not find anything specific other than the fact that here is a guy who was exposed to something and went to the emergency room for evaluation.

So I think by itself that had some importance to me.

Q. Okay. Even if you've since learned that the agent probably was Freon, you can't find any substantiation for Freon causing asthma?

[BOOKER'S COUNSEL]: Objection to the question.

[DR. REDJAE]: Again, it's unclear to me what the agent was at that time. If I'm going to believe that it was purely Freon, then I have to say that it does not cause asthma, but I'm not exactly sure what happened during that situation and it is not clear in the emergency room records as well.

We take from Redjaee's testimony that he had little factual information about the accidental release of Freon on December 15, 1998. He was

still not clear exactly what happened there. So if it was a clear cut agent that we knew for sure what it was, it would help. But I don't - I think things are not very clear cut to me.

He added, "I am not sure what it was. I don't think anybody can tell me what it was." To the extent that he did understand that the accident involved Freon gas, he opined: "[I]f I'm going to believe that it was purely Freon, then I have to say that it does not cause asthma...." Dr. Redjaee, repeatedly stated he did not know what other chemicals were involved, if any. The OSHA investigation concluded that Freon was the only chemical involved in the accident.

Appellee casts his causation claim on the equivalent of a *res ipsa loquitur* theory; that is, if there is no other explanation, and no other exposure, the asthma must have been caused by the Freon. See generally *Holzhauser v. Saks & Co.*, 346 Md. 328 (1997).

Dr. Radjaee was not clear about what happened, not clear about what chemicals were involved, and when he was asked about why his review of the emergency room reports suggested that Booker developed asthma from the incident, he responded:

I didn't find anything other than the fact that he went there [i.e., to the emergency room] as a result of the exposure to what they call a chemical irritant.

There was no specific mention of any agent or any wheezing or anything like that. So I did not find anything specific other than the fact that here is a guy who was exposed to something and went to the emergency room for evaluation.

So I think by itself that had some importance to me.

Nevertheless, Dr. Redjaee opined that the incident caused Booker's asthma. The *res ipsa loquitur* doctrine, however, is inapplicable in situations where an expert is needed to prove causation. *Holzhauser, supra*, 346 Md. at 341. Of course, the doctrine is likewise inapplicable in workers' compensation litigation, where the right to benefits is not dependent upon the negligence of another.

We think that Redjaee's testimony amounts to a "because I think so," or "because I say so," situation. Maryland law makes clear that an expert can not assert an admissible opinion without an adequate factual basis or reliable methodology. *Wood, supra*, 134 Md. App. at 521-27; *Beatty, supra*, 330 Md. at 741. In *Beatty, supra*, the Court of Appeals wrote the following about expert

opinions:

Our cases hold that “an expert’s opinion is of no greater probative value than the soundness of his reasons given therefor will warrant.” *Surkovich v. Doub*, 258 Md. 263, 272, 265 A.2d 447 (1970), and cases there cited. Otherwise stated, we have said that “[a]n expert’s judgment has no probative force unless there is a sufficient basis upon which to support his conclusions.” *Bohnert v. State*, 312 Md. 266, 275, 539 A.2d 657 (1988). In this regard, we said in *State Health Dep’t v. Walker*, 238 Md. 512, 520, 209 A.2d 555 (1965), that an expert opinion “derives its probative force from the facts on which it is predicated, and these must be legally sufficient to sustain the opinion of the expert.” Specifically, we noted:

The premises of fact must disclose that the expert is sufficiently familiar with the subject matter under investigation to evaluate his opinion about the realm of conjecture and speculation, for no matter how highly qualified the expert may be in his field, his opinion has no probative force unless a sufficient factual basis to support a rational conclusion is shown. *State, Use of Stickley v. Critzer*, 230 Md. 286, 186 A.2d 586, and cases cited therein; *Hammaker v. Schleigh*, 157 Md. 652, 147 Atl. 790. The opinion of an expert, therefore, must be based on facts, proved or assumed, sufficient to form a basis for an opinion, and cannot be invoked to supply the substantial facts necessary to support such conclusion. The facts upon which an expert bases his opinion must permit reasonably accurate conclusions as distinguished from mere conjecture or guess. *Marshall v. Sellers*, 188 Md. 508, 53 A.2d 5.

Id. 330 Md. at 741.

Moreover, we conclude that Dr. Redjaee's testimony was not the product of the application of reliable principles and methods. Most notably, he did not rely on a single medical or scientific study suggesting a causal relationship between Freon exposure and asthma. He acknowledged that his research "was limited to looking up some textbooks," perhaps implying that, although those text books did not support his position, some other textbook or study might show a causal connection. We view this approach as woefully inadequate, in that it is clear that Dr. Redjaee did not conduct an exhaustive medical textbook or journal review. It is important to recall that Dr. Redjaee had not reviewed Booker's medical records prior to his March 2000 visit. He did not know whether Booker had been involved in any other incidents involving chemicals (whether at work or at home) between December 1998 and March 2000, when he became the treating physician.

Based on the foregoing, we find our earlier holding in *Wood, supra*, to control. Here, as in that case, a juror could not reasonably find that the incident on December 15, 1998, caused Booker's adult on-set asthma when Dr. Redjaee's theory provided no rational explanation for why that had occurred, other than simply coming to that conclusion. Accordingly, we hold that the trial court erred in denying appellants' motions for judgment and judgment notwithstanding the verdict, as no other legally sufficient evidence on causation had been presented that would

have justified submission of the case to the jury.

It is as important "to note what we are not holding as to note what we are holding." *Stokes, supra*, 120 Md. App. at 359. We are not holding that the incident on December 15, 1998, did not cause Booker's asthma, nor are we saying only that an expert could not so find. We are saying that Dr. Redjaee's testimony lacked a sufficient factual basis and reliable methodology for the jury to accept his opinion on that issue. Absent any other probative evidence of causation, the trial erred by not granting appellants' motion for judgment.

**JUDGMENT OF THE CIRCUIT COURT F O R
PRINCE GEORGE'S COUNTY REVERSED; CASE
REMANDED TO THAT COURT WITH DIRECTION
TO AFFIRM THE DECISION OF THE
WORKERS' COMPENSATION COMMISSION.**

COSTS TO BE PAID BY APPELLEE.