

LYNDA L. MILLER, Employee, v. ABBOTT NW. HOSP., SELF-INSURED/GALLAGHER BASSET SERVS., Employer/Appellant.

WORKERS' COMPENSATION COURT OF APPEALS  
JULY 17, 2001

No. [REDACTED SSN]

HEADNOTES

OCCUPATIONAL DISEASE. While the compensation judge erred in concluding that the employee's exposure to radiation constituted an occupational disease, the record supported the conclusion that the exposure caused a personal injury to the employee's thyroid by virtue of the fact that the thyroid showed sufficient levels of radioactivity to prompt the employer to remove the employee from further exposure and to prompt the employee's medical provider to institute treatment.

CAUSATION - SUBSTANTIAL CONTRIBUTING CAUSE. Substantial evidence did not support the compensation judge's decision that the employee became hypothyroid as a result of treatment for injury caused by radiation where there was no medical opinion evidence to support that conclusion and there was express medical opinion evidence to the contrary.

CAUSATION - SUBSTANTIAL CONTRIBUTING CAUSE; MEDICAL TREATMENT & EXPENSE - REASONABLE & NECESSARY. While substantial evidence did not support the conclusion that the employee needed continued thyroid hormone replacement therapy as a result of the employee's personal injury caused by radiation exposure, the judge's award of a bone density scan was reasonable in view of evidence that the employee's treatment for the personal injury put her at risk for osteoporosis.

Affirmed in part and reversed in part.

Determined by Wilson, J., Johnson, J., and Pederson, J.  
Compensation Judge: Carol A. Eckersen

OPINION

DEBRA A. WILSON, Judge

The self-insured employer appeals from the compensation judge's award of medical expenses, arguing that the judge erred in finding a compensable occupational disease and in finding a consequential injury related to the employee's treatment for that occupational disease. We affirm in part and reverse in part.

## BACKGROUND

The employee started working in the Hickok Cancer Research Lab of Abbott Northwestern Hospital [the employer] in 1968 or 1969. Beginning in about 1975, the employee's job required her to handle a radioactive isotope, Iodine 125 [I-125], in a process called "labeling."

The employee used an automatic pipette to remove a tiny amount of the I-125 from a vial and to place the I-125 into a test tube. Other chemicals were added, and the resulting mixture was transferred to dialysis tubing that was then sealed off and placed into water. The employee performed this work anywhere from once a month to twice a week; the procedure took between 15 and 20 minutes to complete. When labeling, the employee worked at a table or bench beneath a chemical exhaust hood, and lead bricks were placed between the employee and the I-125 as she was working, in order to shield her from radiation. She wore gloves, a mask, and a lead apron as well as a radiation monitoring badge on the lapel of her lab coat. At some point, she also began wearing a ring monitoring badge. These monitoring badges, worn by all workers in the lab, were sent monthly to a separate facility for testing. The employee also used a Geiger counter and a "picker" machine to check herself for radiation exposure on days that she used the I-125. She ran the Geiger counter particularly over her neck area, because I-125 is picked up by the thyroid gland.

In 1979, the employee sought treatment for complaints of hair loss, weight gain, and dry skin. Her physician felt she was working too hard. A November 20, 1979, thyroid uptake test, using I-131, another radioactive isotope, was read as normal.

In September of 1980, the employee tested her urine with a gamma counter, which disclosed radiation levels ten times "normal" background levels. Other lab personnel at that time tested at levels within two times background level. Thyroid counts, taken of all lab personnel on September 29, 1980, indicated that the employee had activity in her thyroid, from radiation, at a level substantially higher than her coworkers but apparently lower than that generated by thyroid uptake testing. Dr. J. Thomas Payne, a radiation physicist involved with the employer's radiation safety program, testified that the employee's level of exposure was not considered particularly hazardous and that the employee's monitoring badge readings were well within acceptable limits. Nevertheless, all I-125 labeling in the lab was suspended pending review, and, ultimately, replacement of the exhaust hood. On October 14, 1980, Dr. Payne restricted the employee from performing labeling experiments for several months, until the I-125 had had time to leave her system.<sup>1</sup> The employee testified that her thyroid continued to register "hot" with a Geiger counter for six or seven months. She ultimately went back to labeling and continued working for the employer for several more years.

In May of 1981, the employee was seen by Dr. Wayne Leebaw, an endocrinologist. He found no evidence of hypothyroidism, underactivity of the thyroid gland. However, after consulting with a radiation specialist at his own facility and reviewing a report from the employer's radiation committee, Dr. Leebaw elected to place the employee on Synthroid, a synthetic thyroid hormone, in an effort to suppress the employee's own thyroid function and thereby reduce the risk of future thyroid cancer. Thyroid function testing in October of 1981 was still normal.

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<sup>1</sup> Calculated through use of the known half-life of I-125.

The employee continued to take Synthroid or its equivalent for most of the following twenty years. She apparently went off the medication briefly on several occasions but restarted when she developed symptoms common to hypothyroidism, such as fatigue. The employee's Synthroid dosage was altered several times, and ultrasound testing ultimately disclosed a very small thyroid nodule or multi-nodular goiter.

After treating with other endocrinologists, including Dr. Steven Woodworth, the employee eventually came under the care of Dr. Samuel Abbate, who recommended a bone mineral density study to determine whether the employee's long course of thyroid suppression therapy had caused her to develop osteoporosis. Dr. Abbate also recommended investigation of the thyroid nodule, as well as regular thyroid evaluations.

The employee took herself off Synthroid for a thirty-day period in early 2000. Thyroid function testing performed after that trial indicated that the employee was very mildly hypothyroid, and she resumed taking the medication.

The matter came on for hearing before a compensation judge on July 20, 2000. At that time, the employee was claiming entitlement to payment for continuing thyroid hormone replacement therapy, thyroid evaluations, and the bone scan recommended by her endocrinologist. While the employer had paid for the employee's thyroid hormone therapy for many years, they were, as of the hearing date, taking the position that the employee had never been injured by her radiation exposure during her employment with the employer. As listed by the compensation judge in her decision, the underlying issues were whether the employee had sustained a work-related injury or occupational disease in 1980 and whether the employee currently had such an injury or occupational disease. Evidence included the employee's medical records; the deposition testimony of the employer's expert internist and endocrinologist, Dr. Thomas Smith; and the deposition testimony of Dr. Craig Yoder, a health physicist and radiation safety expert employed by the company that does the monitoring badge testing for the employer. Testimony at hearing was given by the employee; the employee's husband; Lance Crombre, another worker in the employer's lab during the employee's employment there; and Dr. Payne.

In a decision issued on October 20, 2000, the compensation judge determined that the employee had "sustained an occupational disease," that she had been disabled due to radiation exposure on October 14, 1980, and that she "had an occupational disease causally related to the 1980 radiation exposure and has a consequential hypothyroid condition as a result of the treatment for her work injury." The judge accordingly ordered the employer to pay for continued thyroid replacement therapy, for the requested bone scan, and for "the recommended medical care." The employer appeals.

## STANDARD OF REVIEW

In reviewing cases on appeal, the Workers' Compensation Court of Appeals must determine whether "the findings of fact and order [are] clearly erroneous and unsupported by substantial evidence in view of the entire record as submitted." Minn. Stat. § 176.421, subd. 1 (1992). Substantial evidence supports the findings if, in the context of the entire record, "they are

supported by evidence that a reasonable mind might accept as adequate.” Hengemuhle v. Long Prairie Jaycees, 358 N.W.2d 54, 59, 37 W.C.D. 235, 239 (Minn. 1984). Where evidence conflicts or more than one inference may reasonably be drawn from the evidence, the findings are to be affirmed. Id. at 60, 37 W.C.D. at 240. Similarly, “[f]actfindings are clearly erroneous only if the reviewing court on the entire evidence is left with a definite and firm conviction that a mistake has been committed.” Northern States Power Co. v. Lyon Food Prods., Inc., 304 Minn. 196, 201, 229 N.W.2d 521, 524 (1975). Findings of fact should not be disturbed, even though the reviewing court might disagree with them, “unless they are clearly erroneous in the sense that they are manifestly contrary to the weight of the evidence or not reasonably supported by the evidence as a whole.” Id.

## DECISION

### Primary Liability

In her memorandum, the compensation judge explained her decision on primary liability as follows:

The first issue in this case is whether the employee sustained a work injury or occupational disease in 1980. The employee contends that the employee sustained an injury of radiation exposure arising out of her employment. The self-insured employer argues that the radiation exposure was so insignificant that it could not have caused a health-altering incident. The employee contends that she may have been exposed to more radiation over time that was not registered by the monitoring systems. The evidence is persuasive that the levels of radiation to which the employee was exposed were minimal. However, the employee’s radiation counts tested on September 25, 1980 and March 30, 1981 are consistent with a greater than background exposure. The employee also had higher counts than her coworkers in the lab. The employee was exposed to a hazard in excess of the ordinary exposure in 1980. The employer argues that the employee does not have a disease based on Dr. Smith’s opinion in hindsight that there was insufficient exposure to cause an injury or disease. I find Dr. Leebaw’s opinions more persuasive. He was her treating physician in 1980 and had an adequate foundation for his opinions even though he did not have the monitoring badge information. Dr. Leebaw felt Ms. Miller had sustained a radiation exposure that led him to recommend treatment. This is consistent with Dr. Payne’s recommendations changing Ms. Miller’s job duties in 1980. In his October 14, 1980 report, Dr. Payne took the employee off all labeling procedures and recommended neck counts every two weeks. This was a change in Ms. Miller’s job duties as she had been the primary person doing labeling in the lab. A preponderance of the credible evidence leads

me to conclude that the employee sustained an occupational disease of radiation exposure on October 14, 1980.

On appeal, the employer argues that, pursuant to case law, the compensation judge erred in concluding that the employee's radiation exposure constituted an occupational disease, that the employee failed to prove that she had developed any disease, at all, due to her radiation exposure, and that the employee did not suffer any "disablement" within the meaning of case law governing occupational disease claims.

We agree that the compensation judge's findings are problematic in several respects. In Hughes v. Fearing Mfg. Co., slip op. (W.C.C.A. Apr. 14, 1993), this court held that mere exposure to a noxious substance, in that case a chemical, did not per se constitute an occupational disease or injury. "[T]he mere fact of an employee's exposure to a potentially pathological substance at work does not obligate the employer and insurer to fund medical services . . . ." Hughes, slip op. at 2. Moreover, while Dr. Leebaw did recommend thyroid hormone replacement therapy to protect the employee against the risk of thyroid cancer, the doctor did not diagnose the employee as having any work-related disease of any kind. As such, Dr. Leebaw's opinion, expressly accepted by the judge, is not in fact actually supportive of the judge's ultimate occupational disease finding. Rather, it appears that, in this case, as in Hughes, the compensation judge failed to distinguish the exposure itself from the effects of an exposure in evaluating whether an occupational disease had been proven. However, whether or not the compensation judge erred in finding an occupational disease, we conclude that the record as a whole nevertheless supports the conclusion that the employee sustained a personal injury within the meaning of the workers' compensation act.

The law regarding exposure as injury is apparently sparse and unsettled. See A. Larson and L.K. Larson, Larson's Workers' Compensation Law § 94.05 (2000). However, in the present case, the employee's exposure to I-125 at work resulted in levels of radioactivity in her thyroid gland sufficient for her supervisors to remove her from further radiation exposure and for her physician to institute treatment. In other words, both the employer and medical personnel felt it necessary to take steps to alleviate the effects of an insult or trauma to the employee's thyroid gland. It may be arguable, in hindsight, that no medical treatment was necessary. However, even Dr. Smith, the employer's own expert endocrinologist, indicated that he would likely have prescribed Synthroid had he been in Dr. Leebaw's place as treating doctor following the employee's radiation exposure in 1980. In view of this evidence, we find the level of radioactivity present in the employee's thyroid gland in 1980 sufficient to constitute a compensable work injury for purposes relevant here.<sup>2</sup>

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<sup>2</sup> Because of our decision on this issue, we need not determine whether the employee suffered a disablement for occupational disease purposes. It should be noted, however, that disablement is not a prerequisite for payment of medical expenses. See Minn. Stat. § 176.135, subd. 5; Skoglund v. Hickory Insulation Co., 42 W.C.D. 512 (W.C.C.A. 1989); Megarry v. Donovan, Inc., 55 W.C.D. 276 (W.C.C.A. 1996).

## Consequential Injury

The compensation judge also concluded that the employee had sustained a compensable consequential injury -- hypothyroidism -- as a result of the treatment for her work injury. We note initially that it is questionable whether the employee does in fact suffer from hypothyroidism, in that the record strongly suggests that the employee's thirty-day trial off Synthroid was insufficient to allow an accurate determination of her thyroid function.<sup>3</sup> However, whether or not substantial evidence supports the judge's decision that the employee is in fact hypothyroid, the record simply will not support the conclusion that hypothyroidism is a compensable consequence of the employee's radiation exposure.

Thyroid hormone replacement therapy acted, in this case, to suppress the employee's own thyroid function -- all medical experts concur on this point. However, Dr. Smith testified that, while it may take several weeks for the thyroid gland to "gear" back up, "[t]here's no evidence that thyroid replacement causes permanent dysfunction of the gland." There is in fact no evidence of record, whatsoever, to indicate otherwise. Similarly, there is no substantial evidence in the record to support the conclusion that the radiation exposure itself, as opposed to the employee's use of Synthroid, caused the employee to become hypothyroid. This is especially true given the compensation judge's conclusion that the employee's radiation exposure was "minimal."

Hypothyroidism due to thyroid hormone replacement therapy is not one of the "commoner afflictions" for which a compensation judge may make a causation determination in the absence of supporting medical opinion. Cf. Bender v. Dongo Tool Co., 509 N.W.2d 366, 49 W.C.D. 511 (Minn. 1993). Because there is no medical opinion evidence to support the conclusion that the employee is hypothyroid as a result of her use of Synthroid, and in view of the express medical opinion evidence that the employee's Synthroid use did not cause her hypothyroidism, we reverse the judge's decision that the employee's hypothyroid condition constitutes a compensable consequential injury.

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<sup>3</sup> Dr. Smith explained that an 8-week trial off medication is necessary to determine whether a patient is hypothyroid. Also, in May of 1987, Dr. Leebaw, the employee's first treating endocrinologist, suggested that the employee have thyroid function testing after being off thyroid hormone for "at least 6 - 7 weeks," noting that, while the employee had not been hypothyroid prior to commencing the medication, it was "possible that in the interim she has developed primary hypothyroidism." The employee testified that she herself decided on a 30-day trial off medication because "normally thirty days is a good trial run." Over the years, the employee complained of various symptoms common to hypothyroidism, such as fatigue, weight gain, and hair loss, especially when she went off Synthroid. However, thyroid function testing was usually normal, and Dr. Smith testified that the employee's hypothyroidism, if she did in fact have hypothyroidism, was so mild that it was very unlikely to account for her complaints.

## Medical Expenses

As previously indicated, the compensation judge concluded that the employee was entitled to payment for continued thyroid hormone replacement, for a bone density scan, and for “the recommended medical care.”

The record as a whole compels the conclusion that, if additional thyroid hormone replacement therapy is necessary, it is necessary because of the employee’s hypothyroidism and not because of the employee’s exposure to radiation in 1980; physicians appear to agree that continued thyroid suppression is not medically indicated treatment for the employee’s level of radiation exposure under current medical thinking.<sup>4</sup> As such, because we have reversed the judge’s finding of a consequential hypothyroidism condition, we also reverse the award of continued thyroid hormone replacement therapy to treat that condition.

The award of a bone density scan presents a close issue. Arguably that scan can be categorized as a purely diagnostic/preventative procedure to determine whether the employee has developed a condition due to her treatment for radiation exposure. However, all physicians who have addressed the subject have indicated that the employee’s many years of over-suppression, through use of Synthroid,<sup>5</sup> have put her at risk to develop osteoporosis, and that a bone density scan is standard reasonable treatment for patients with the employee’s history of Synthroid use. Apparently, the risk here is not remote. Cf. Kramer v. Buffalo Bituminous, slip op. (W.C.C.A. June 6, 2001). Under these circumstances, we conclude that, since Synthroid was reasonably prescribed to treat the employee’s personal injury due to radiation exposure, the bone density scan

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<sup>4</sup> Again, assuming the minimal radiation exposure measured by Dr. Payne through testing at the employer in 1980. It was the employee’s theory that she had more radiation exposure, at higher levels or for longer periods, than was evident from the 1980 testing. To support this conclusion, the employee submitted a letter regarding an analysis of the fume hood, implying that she might have inhaled I-125 because of inefficiencies in the exhaust, and she testified that her monitoring badge might have been covered by her lead apron as she worked, although she did not recall that ever happening. However, again, in her memorandum, the judge concluded that the evidence was “persuasive that the levels of radiation to which the employee was exposed were minimal,” a conclusion not at issue on appeal. Assuming a minimal exposure, even Dr. Abbate would not recommend continued thyroid hormone therapy to treat the employee for the 1980 radiation exposure.

<sup>5</sup> Because the employee was generally thought to have normal thyroid function, at least for many years following the institution of Synthroid therapy, and given the dosages of Synthroid the employee took during various periods, the employee’s thyroid function was considered to be “chronically over-suppressed,” with the hormone therapy rendering her biochemically hyperthyroid.

can be viewed as a reasonable extension of that original treatment.<sup>6</sup> We therefore affirm the judge's decision on this issue.

Finally, we are not entirely certain what other treatment the judge intended to authorize by ordering the employer to pay for "the recommended medical care." At hearing, the employer agreed to pay for treatment if causation was found, and not all of the expenses at issue were set out in detail. However, because of our causation decisions on appeal, the employee's medical expense claims cannot be resolved through an "all or nothing" approach. With regard to the employee's radiation exposure, Dr. Abbate recommended that, "at a minimum, an annual examination with careful palpation of the gland would be indicated," so an award to that extent would be supported by the record. If there are other particular treatments at issue, not specifically delineated in the record, the parties may litigate those claims further through another medical request or claim petition, if no agreement can be reached as to which expenses relate to the employee's hypothyroidism as opposed to treatment for the employee's radiation injury.

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<sup>6</sup> Our decision as to the employee's entitlement to the scan has no necessary implications as to the employer's liability should the scan actually reveal osteoporosis. That is, causation of the osteoporosis will remain an open question pending either an admission of liability or litigation.