

## The Global Epidemic of Overweight and Obesity

By: Pamela Berge, Ph.D., Elizabeth B. Juliano and Carey J. Marousek

### Introduction

The escalating worldwide epidemic of overweight and obesity has become one of our most important public health nutritional problems. Although the word 'epidemic' has traditionally been used in the study of infectious diseases, more recently it has been used to describe events that clearly occur in excess of what would normally be expected, such as the prevalence<sup>1</sup> of obesity (1). According to the World Health Organization's (WHO) recently released report, more than one billion adults worldwide, in middle-income and high-income countries, are overweight, and at least 300 million are obese (2). In some regions of the world, such as areas of North America, the United Kingdom, Eastern Europe, the Middle East, the Pacific Islands, Australia, and China, obesity rates have risen 3-fold or more since 1980, as a result of increases in sugar and saturated fat consumption combined with reduced physical activity (2). In the United States, it has recently been reported that 65% of the adult population is overweight (3). In line with this increase has been the appearance of lawsuits relating to obesity. The current target of these actions has been the fast food industry alleging that

companies failed to disclose the adverse health effects that could result from the over consumption of their high-fat, high-salt products. On January 22, 2003, U.S. District Judge Robert Sweet dismissed the suit against McDonalds, noting that the plaintiffs failed to show the fast food chain's products presented a danger unknown to consumers. The plaintiffs were claiming health problems including diabetes and coronary artery disease. This ruling, however, may be appealed, and other cases have been on hold awaiting this decision. Therefore, it still remains unclear as to how the plaintiffs may choose to pursue these cases. It is apparent that understanding the complete medical history of any plaintiff in a "fast food" case will be as significant as that of plaintiffs in the tobacco litigation. This paper briefly reviews: the guidelines used to classify individuals as overweight and obese; some of the associated health risks associated with excess body weight; and finally, some of the environmental determinants of the obesity epidemic.

### Definition and classification of overweight and obesity

It difficult to measure body fat directly, so surrogate measures such as body

mass index (BMI) and waist circumference are commonly used to measure overweight and obesity (2). BMI, also known as the Quetelet index, is strongly correlated with body fat content. BMI is calculated by dividing a person's weight in kilograms by their height in square meters ( $\text{kg}/\text{m}^2$ ); BMI can also be obtained from a chart or a table or a nomogram. Although there are a variety of techniques that have been developed for measuring body fat distribution, prevalence of overweight and obesity is commonly assessed using BMI; thus, due to space limitations we are restricting our discussion to BMI and waist circumference.

There are two sets of guidelines, commonly used for assessing and treating overweight and obesity that are based on a graded classification scheme of BMI. The first was issued by the World Health Organization (WHO 1997: *Obesity, Preventing and Managing the Global Epidemic*, available at <http://www.who.int>). The second was issued by the National Heart Lung and Blood Institute (NHLBI) of the

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National Institutes of Health (NIH 1998: *Clinical Guidelines on the Identification, Evaluation and Treatment of Overweight and Obesity in Adults the Evidence Report*, available at <http://www.nhlbi.nih.gov/guidelines>).

Both the WHO and the NHLBI guidelines define a BMI of 25 or greater as pre-obese and overweight, respectively. The widely accepted definition of obesity is a BMI of 30 or greater, see Table 1. While both the NHLBI and the WHO recognize 3 classes of obesity, the NHLBI refers to class III obesity, a BMI greater than or equal to 40, as *extreme obesity*. The cutoff points for defining the overweight and obese categories shown in Table 1 have traditionally been based on increased risk of morbidity and mortality associated with increasing levels of BMI (1,4,5).

Although the relationship between BMI and mortality is complex, epidemiologic data show a modest increase for a BMI greater than 25 and a marked increased risk for mortality from all causes at a BMI of 30 or above (4,5,7). In other words, BMI represents a continuous scale of risk<sup>2</sup>; as BMI increases, risk of morbidity and/or mortality increases, the cutoff values for classifying overweight or obese adults were therefore set at a BMI greater than or equal to 25 and greater than or equal to 30, respectively. *Are you overweight? Are you obese? You can check by logging onto <http://www.nhlbisupport.com/bmi>.*

### *Difficulty in assessing body mass index across populations*

BMI generally correlates well with body fat in both men and women and is relatively unaffected by height. However, BMI can be *overestimated* in athletes and others who have a muscular build, and BMI can be *underestimated* in older individuals and others who have lost lean body mass (4,5,7). It has been shown repeatedly that a given BMI may not correspond to the same degree of fatness across populations (4,5,8).

Indeed, WHO cautions that use of the same BMI cutoff points may not be appropriate for all populations. For example, in African and Asian adult populations, mean BMI is 20-23 compared to the mean BMI of 25-27 found across North America and Europe (2). In Asian populations, obesity

associated morbidity and mortality occurs at a lower BMI compared to other ethnic groups; therefore, the WHO criteria consider Asians overweight at a BMI of 23 and obese at a BMI of 25 (5,9). In addition, when comparing young versus older individuals and men versus women, older individuals and women will generally have a higher percent of body fat (for a given weight and height) despite similar BMIs. It has recently been proposed, that a BMI greater than 25 rather than a BMI greater than 30 may more accurately diagnose obesity in postmenopausal women (10). *Although WHO criteria define overweight as a BMI of at least 25 and obesity as a BMI of at least 30, "the risks of disease in all populations increase progressively from BMI levels of 20-22" (2).*

### *Regional distribution of fat as independent risk of disease*

Although BMI is often used to estimate the prevalence of obesity within a population and the risks associated with it, use of BMI alone is limited because it does not account for the wide variation in how body fat is distributed. There are two basic patterns of regional fat distribution in individuals who are obese: 1) abdominal or central body fat distribution, in which an individual's shape is said to resemble an apple; and, 2) lower body fat distribution around the hips and peripheral regions of the body, in which an individual's shape is said to resemble a pear (4,5,11,12).

Abdominal fat distribution is associated with increased risk of metabolic abnormalities and chronic diseases, such as cardiovascular disease, although these risks are not the same for all populations (4). Abdominal fat can be assessed by measuring waist circumference, a relatively simple measurement that is unrelated to height but is closely correlated with BMI and total body fat (11,13). According to the NHLBI report, an individual is considered to be at high risk for cardiovascular morbidity if that individual has a BMI greater than or equal to 25, with a waist circumference greater than 40 inches (102 cm) for men and 35 inches (88 cm) for women, see Table 1 (4,7).

### *Overweight and obesity: an escalating trend among adults & children in the U. S.*

Since 1960, a series of national surveys<sup>3</sup> measured the height and weight for both adults and children. These surveys demonstrate that the prevalence of overweight and obesity *increased markedly* in the United States between 1988-1994 and earlier years (1). The most recent survey reports that the age-adjusted prevalence of overweight adults in the United States population rose from 56% in 1988-1994 to 65% in 1999-2000. The prevalence of obesity also increased from approximately 23% in 1988-1994 to 31% in 1999-2000, and extreme obesity (defined as having a BMI of 40 or greater) increased from 3% to nearly 5% (3). Among women,



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*The authors thank Jean Bourgeois and Joan Hudson for their contributions to this article.*

the highest prevalence was found among non-Hispanic black women, of whom more than 80% aged 40 years or older were overweight and 50% were obese (3). Although blacks and Hispanics are disproportionately affected by this epidemic, the increase in prevalence has been so rapid that there are no population subgroups or regions of the country that have been spared (3). *Based on the escalating trends that occurred between 1975 and 1999, it has been estimated that by the year 2025, the prevalence of obesity in the United States could be as high as 40-45%, and within a few generations, the entire population could be overweight (8).*

The obesity epidemic is not restricted to adults; the problem has increased rapidly in children and adolescents aged 2 through 19 years as well. The definitions of overweight and obesity in children are less standardized than those of adults, but generally, overweight is defined as at or above the 95<sup>th</sup> percentile of the sex-specific body mass index for age growth charts (1,13). Between 1988 and 1994, 11% of young 6-through 19-year-old Americans were overweight compared to 16% in 1999-2000 (13). The racial/ethnic trend reported for adults, is consistent among children; black and Hispanic children had a higher prevalence of overweight than white children (13). The fast food industry has been rebuked for its marketing

practices aimed at children, and the impact of such marketing in relation to the trend in obesity.

### *Morbidity risk associated with overweight & obesity*

The adverse health effects of both overweight and obesity are influenced by several factors including: the extent of body weight, the distribution of body fat, the amount of weight gain during adulthood, and a sedentary lifestyle or lack of physical activity (5).

Obesity is a disease in its own right, and it is also a key risk factor for a variety of other chronic, non-communicable diseases and conditions including: hypertension, type 2 diabetes mellitus, coronary artery disease, stroke, gallbladder disease, osteoarthritis and musculoskeletal disorders, sleep apnea and respiratory problems, and some types of cancer (endometrial, breast, prostate, kidney, gallbladder and colon) (2,4). Data from a large population-based study recently reported that 11% of heart failure cases among men and 14% among women were attributable to obesity alone (14). Obesity is also associated with complications of pregnancy, menstrual irregularities, hirsutism, stress incontinence, skin problems, and a variety of psychosocial disorders, including depression (4,8).

***“within a few generations,  
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**TABLE I: Classification of overweight and obesity according to BMI, waist circumference and risk of co-morbid disease.**

(from the NHLBI Expert Panel on the Identification, Evaluation, and treatment of overweight and obesity in adults: evidence report. *Obes Res* 1998;6(suppl 2):51S-209S).

	BMI (kg/m <sup>2</sup> )	Disease Risk <sup>1</sup> relative to normal weight & waist circumference.	
		Men ≤/ 40 in.	> 40 in
		Women ≤/ 35 in.	>35 in
Underweight	Less than 18.5	—	—
Normal range <sup>2</sup>	18.5-24.9	—	—
Overweight	25.0-29.9	Increased	Increased
Obese Class I	30.0-34.9	High	Very high
Obese Class II	35.0-39.9	Very high	Very high
Obese Class III (Extreme)	greater than or equal to 40	Extremely high	Extremely high

- NHLBI considers an individual to be at high risk for type 2 diabetes, hypertension and cardiovascular disease if that individual has a BMI greater than or equal to 25, with a waist circumference greater than 40 inches (102 cm) for men and 35 inches (88 cm) for women. Disease risk associated with waist circumference increases as BMI increases, at BMI greater than or equal to 40, risk is *extremely high*.
- NHLBI states that increased waist circumference can be a marker for increased risk for type 2 diabetes, hypertension and cardiovascular disease *even in individuals within the normal weight range*.

*The WHO estimates that globally, 58% of diabetes mellitus, 21% of ischemic heart disease, and 8-42% of certain cancers can be attributed to a BMI greater than 21 (2).* It has recently been estimated that nearly 47 million United States residents, or roughly 24% of the population, have what is referred to as the metabolic syndrome, which places an individual at high risk for developing diabetes (15). Among young adults, the rise in overweight and obesity has been associated with the emergence of type 2 diabetes mellitus as a growing health problem (13). Other obesity-associated co-morbid diseases and conditions, traditionally observed in adults, are also becoming important medical problems in obese children and adolescents, including: hypertension, high blood cholesterol, insulin resistance, glucose intolerance, left ventricular hypertrophy, and pulmonary hypertension resulting from obstructive sleep apnea (2,16).

### *Mortality risk associated with overweight & obesity*

In addition to having an increased risk for morbidity, obesity is associated with an increased risk of mortality. Nearly half a million people in North America and Europe die from overweight- and obesity-related diseases every year, and approximately 300,000 of these deaths occur in the United States alone (2,17). In the majority of epidemiologic studies, mortality begins to increase with BMIs above 25, but the increase tends to be modest until a BMI of 30 is reached (4). For persons with a BMI of 30 or above, mortality rates from all causes, and especially from cardiovascular disease, are generally increased by 50 to 100% above that of persons with BMIs in the range of 20 to 25 (4). More than 80% of deaths attributable to overweight or obesity occurred in persons with BMIs of at least 30. Between 1988 and 1994 about 23% of U.S. adults had a BMI of at least 30; this increased to 31% by 1999-2000 (3,17).

### *Environmental determinants of the obesity epidemic: increased food intake, decreased physical activity*

In the United States, the rapid increase in prevalence of overweight and obesity has affected the entire range of BMI values, although the changes are most marked at the upper end of the distribution; in other words, the heaviest individuals, became heavier (3). While it is recognized that hereditary factors play a role in determining an individual's susceptibility to becoming overweight or obese, several lines of evidence suggest that genetic factors alone cannot explain the rapid increase in the prevalence of overweight and obesity (4,18).

The maintenance of body weight stability depends on one's ability to balance the amount of energy intake (e.g. the amount of food calories consumed) to energy expenditure.

This principle is one of the most accepted principles in science (18,19,20). Thus, one of the major determinants of the increased prevalence of overweight and obesity has been environmental, related to food intake and physical activity patterns. An environment that encourages a high caloric diet coupled with a lower energy expenditure, will cause an energy imbalance and thus promote weight gain (18,21). In the United States, factors contributing to increased consumption of calories include: increased numbers of meals away from home, larger portions consumed outside the home at restaurants including all-you-can-eat buffet style restaurants and fast food establishments, and sophisticated food marketing techniques in the mass media and supermarkets (4,18,22).

Although we may be overeating, reduced physical activity represents one of the most significant changes in lifestyles that has been observed during the twentieth century (19). Individuals have an opportunity to engage in physical activity from four major domains of their day-to-day routines: work (particularly if their jobs require manual labor); transportation (walking or cycling to work); domestic duties (e.g. housework or gathering fuel); and leisure time (participation in sports or recreational activities) (2). WHO defines physical inactivity as "doing very little or no physical activity in any of these domains (2)."

The U.S. population has become so sedentary that for many people, even when caloric intake is not above the recommended level, the number of calories expended in physical activity is insufficient to offset the number of calories consumed (4). Modern technology limits the amount of physical activity required to function in society. Many people spend hours of their daily routine sitting at work, sitting in traffic or on commuter buses or trains, and sitting in front of a television or computer. This has resulted in a dramatic reduction of physical activity and exertion during the past 30 years (4). It has recently been reported that in 2000, 27% of adults in the U.S. did not engage in any leisure-time physical activity, 28% were not regularly active, approximately 35% were trying to lose weight, 36% were trying to maintain weight, and 26% were doing neither (23).

Changes in activity and exercise levels can have a major impact on total energy expenditure and on energy balance as well as overall health. Physical activity reduces the risk of cardiovascular disease and type 2 diabetes; it may reduce the risk of some cancers (e.g. breast and colon); and improves blood glucose levels, reduces body fat and lowers blood pressure (2). In 1996, it was recommended that all adults engage in a daily regimen of 30 minutes of physical activity, but this was found to be insufficient for maintaining body weight in the recommended BMI range of 18.5 up to 25 (24). It is now recommended that adults and children incorporate 60 minutes per day of moderate physical activity (e.g. walking, jogging at 4 to 5 mph) into their daily routine (25).

## Summary

We would like to reiterate the fact that the worldwide epidemic of overweight and obesity is now recognized as one of our most important public health nutritional problems. Although carrying excess body weight is an important risk factor for a variety of chronic diseases and conditions, it is important to distinguish between what epidemiologists define as 'attributable fraction' and the probability of causation. Attributable fraction, also referred to as population attributable risk, is often *incorrectly* equated with the probability of causation of disease in an individual (26). The WHO defines the population attributable risk as the proportion of disease in a *population* that results from a particular risk to health (e.g. overweight) (2). Probability of causation addresses whether the specific exposure or risk factor (e.g. being overweight) caused this *individual's* disease (e.g. diabetes). Epidemiologic data does not determine the probability of causation — that is, one cannot determine the cause of an individual's disease. (26). For further discussion of this topic, see reference 26.

Another important point to emphasize is that regardless of attempts to characterize obesity as a biomedical issue, concepts of 'ideal' body weight are, to a large extent culturally defined (27). For example, in many affluent industrialized societies female beauty standards encourage women to be thin. Whereas in many low-income societies or populations, being thin may be interpreted as a sign of illness or distress; thus, excess body weight is not necessarily viewed as problematic, and may even be viewed as potentially protective (27). Moreover, individuals in these communities who are medically classified as overweight or obese may be less likely to see the need to lose weight if they do not have high blood pressure or elevated glucose levels (27).

Finally, while beyond the scope of this paper, individuals who are overweight or obese should be evaluated according to: 1) their degree and type of obesity; and, 2) their absolute risk of obesity associated co-morbidities. This requires reviewing an individual's complete medical history, physical examinations, and appropriate laboratory tests. For more information on this subject, the reader is referred to the WHO and NHLBI guidelines (4,5). Part two of this series will address, in more detail, components of the medical records which are relevant to evaluating obesity-related co-morbid conditions and how this information may be utilized from a legal standpoint.

## Bibliography

1. Flegal, K.M. The obesity epidemic in children and adults: current evidence and research issues. *Med Sci Sports Exerc* 1999;31(11, Suppl):S509-514.
2. World Health Organization. The World Health Report, 2002: Reducing risks, promoting healthy life. Geneva, October, 2002.
3. Flegal, K.M., Carroll, M.D., Ogden, C.L., et al. Prevalence and trends in obesity among US adults, 1999-2000. *JAMA* 2002;288(14):1723-1727.
4. NHLBI Expert Panel on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults. Clinical guidelines on the identification, evaluation, and treatment of overweight and obesity in adults: the evidence report. *Obes. Res.* 1998;6(suppl 2):51S-209S, (available at <http://www.nhlbi.nih.gov/guidelines>).
5. World Health Organization, Consultation on Obesity. Obesity: Preventing and Managing the Global Epidemic. Geneva, Switzerland: World Health Organization; 1997. WHO Technical Report Series 894, (available at <http://www.who.int>).
6. Gordis, L. *Epidemiology*, Second Edition, W.B. Saunders Company, Philadelphia, 2000.
7. Khaodhiar, L. and G.L. Blackburn. Obesity assessment. *Am Heart J* 2001;142:1095-1101.
8. Antipatis, V.J. and T.P. Gill. Obesity as a global problem (Chapter 1). IN: *International Textbook of Obesity*. Edited by Per Borntorp, John Wiley & Sons, Ltd., West Sussex, 2001, pages 3-29.
9. World Health Organization. The Asia-Pacific Perspective: Redefining obesity and its treatment. (available at <http://www.idi.org.au> or [www.iotf.org](http://www.iotf.org)).
10. Blew, R.M., Sardinha, L.B., Milliken, L.A., et al. Assessing the validity of body mass index standards in early postmenopausal women. *Obes. Res.* 2002;10(8):799-808.
11. Han, T.S. and M.E.J. Lean. Anthropometric indices of obesity and regional distribution of fat depots (Chapter 4). IN: *International Textbook of Obesity*. Edited by Per Borntorp, John Wiley & Sons, Ltd., West Sussex, 2001, pages 51-65.
12. Zhu, S.K., Wang, Z.M., Heshka, S., et al. Waist circumference and obesity-associated risk factors among whites in the third National Health and Nutrition Examination Survey: clinical action thresholds. *Am J Clin Nutr* 2002;76:743-749.
13. Ogden, C.L., Flegal, K.M., Carroll, M.D., et al. Prevalence and trends in overweight among US children and adolescents, 1999-2000. *JAMA* 2002;288(14):1728-1732.
14. Kenchaiah, S., Evans, J.C., Levy, D., et al. Obesity and the risk of heart failure. *N Engl J Med* 2002;347:305-315.
15. Ford, E.S., Giles, W.H. and W.H. Dietz. Prevalence of the metabolic syndrome among US adults. Finds from the Third National Health and Nutrition Examination Survey. *JAMA* 2002;287(3):356-359.
16. Sorof, J. and S. Daniels. Obesity hypertension in children: a problem of epidemic proportions. *Hypertension* 2002;40:441-447.
17. Allison, D.B., Fontaine, K.R., Manson, J.E., et al. Annual deaths attributable to obesity in the United States. *JAMA* 1999;282(16):1530-1538.
18. Troiano, R.P. Physical inactivity among young people. *N Engl J Med* 2002;347(10):706-707.
19. Tremblay, A. and J.-P. Despres. Exercise and macronutrient balance (Chapter 12). IN: *International Textbook of Obesity*. Edited by Per Borntorp, John Wiley & Sons, Ltd., West Sussex, 2001, pages 155-161.
20. Guyton, A.C. and J.E. Hall. Textbook of Medical Physiology: Dietary balances; regulation of feeding; obesity and starvation; vitamins and minerals. IN: *Textbook of Medical Physiology*. W.B. Saunders Company, Tenth Edition, Philadelphia, 2000, pages 803-814.
21. Flegal, K.M. and R.P. Troiano. Changes in the distribution of body mass index of adults and children in the US population. *Intl J Obes* 2000;24:807-818.
22. Nielsen, S.J., Siega-Riz, A.M. and B.M. Popkin. Trends in food locations and sources among adolescents and young adults. *Prev Med* 2002;35:107-2002.
23. Mokdad, A.H., Bowman, B.A., Ford, E.S., et al. The continuing epidemics of obesity and diabetes in the United States. *JAMA* 2001;286(10):1195-1200.

24. DHHS. *Physical activity and health: a report of the Surgeon General*. Atlanta, GA: U.S. National Center for Chronic Disease Prevention and Health Promotion, 1996.
25. Institute of Medicine of the National Academies. *Dietary Reference Intakes for Energy, Carbohydrate, Fiber, Fat, Fatty Acids, Cholesterol, Protein and Amino Acids* [prepublication copy]. Part 2, Chapter 12: *Physical Activity*, The National Academies Press, Washington, DC, 2002, pages 12-1 to 12-39. [available at <http://www.nap.edu>]
26. Greenland, S. and J.M. Robbins. *Epidemiology, justice and the probability of causation*. *Jurimetrics* 2000;Spring:321-340.
27. Kumanyika, S. *The minority factor in the obesity epidemic*. *Ethn Dis* 2002;12:316-319.
- 1 **Prevalence**: The number of events, e.g. instances of a given disease or condition, in a given population at a designated time. When used without qualification, the term usually refers to a situation at a specified point in time (point prevalence). For further discussion, see reference 6.
- 2 **Risk**: the WHO defines risk as “a probability of an adverse outcome, or a factor that raises this probability,” (2); or, there is an increased or decreased incidence of a certain disease given a certain exposure or characteristic, e.g. obesity (for a full discussion of risk, see reference 6).
- 3 For details on these surveys go to [www.cdc.gov/nchs/nhanes.htm](http://www.cdc.gov/nchs/nhanes.htm)
- 4 For more information on measuring BMI in children, go to <http://www.cdc.gov/nccdpp/dnpa/bmi/bmi-for-age.htm>.
- 5 **Metabolic syndrome**: participants having 3 or more of the following criteria were defined as having the metabolic syndrome: 1) abdominal obesity [waist circumference greater than 40 inches (102 cm) in men and 35 inches (88 cm) in women]; 2) hypertriglyceridemia: greater than or equal to 150 mg/dl (1.69 mmol/L); 3) low high-density lipoprotein (HDL) cholesterol: less than 40 mg/dL (1.04 mmol/L) in men and <50 mg/dL (1.29 mmol/dL) in women; 4) high blood pressure: greater than or equal to 130/85 mm Hg; 5) high fasting glucose: greater than or equal to 110 mg/dL (6.1 mmol/L), (15).

## Asbestos Litigation Costs and Compensation — An Interim Report

*Reviewed by Elizabeth B. Juliano and Carey J. Marousek*

The RAND Institute for Civil Justice released *Asbestos Litigation Costs and Compensation - An Interim Report* in September 2002. The study is a comprehensive review of the history and status of asbestos litigation from a variety of perspectives, with the ultimate issue being whether the current tort system is the best way to resolve asbestos claims.

This study sought to synthesize data from a variety of sources, including federal courts, individual defendants, insurers, proprietary studies, interviews, and previous RAND research. It is noted that a minimal amount of comprehensive data is available, as there is no national registry of asbestos claims and lawsuits, most claims involve multiple defendants who keep their own confidential records, and claimants often receive money from multiple sources over long periods of time.

The report notes that over 600,000 claims had been filed in the U.S. through the end of 2000, and annual filings have risen over the last few years. There are increasing numbers of claims by functionally unimpaired, non-malignant individuals. Mesothelioma claims, while increasing, account for a small percentage of claims.

The typical claimant will name 60 to 70 defendants, an increase from an average of 20 different defendants in the early 1980s. The total list of defendants included in this study was over 6,000. It is noted that at least one company in nearly every U.S. industry (at the two-digit SIC level) is now involved in this litigation. According to the Claims Resolution Management Corporation, 40,453 claims from workers in “non-traditional” industries were filed in 2001, as compared to 11,420 similar claims in 1999. By spring 2002, at least 60 companies had filed for bankruptcy as a result of their asbestos liability exposure.

The report also notes that cases are heavily concentrated (66% of U.S. total filings) in five states: Mississippi, New York, West Virginia, Ohio, and Texas. The report reviews the various reasons for these concentrations, as well as the particulars of certain venues within these states.

The projections by different sources vary; however there is consensus that asbestos litigation is “far from over.” This report estimates that defendants and insurers spent \$54 billion through the end of 2000 to compensate the 600,000 claimants. As additional claimants come forward, the total cost estimates are for three to four times that amount. The report concludes that a figure of potentially over \$200 billion raises the fundamental question of whether there will be enough money to pay future claimants. The report highlights that asbestos defendants also experience reductions in investment levels and job creation; therefore, bankruptcy is not the only economic effect to be addressed as a result of asbestos litigation.

The authors will publish a final report in early 2003, which will analyze the policy alternatives, including maintaining the status quo, relying on the bankruptcy system, changing the substantive doctrine by redefining “injury” to require functional impairment, and creating an administrative compensation program.

The full text PDF of this report is available at <http://www.rand.org/publications/DB/DB397/>. The authors of the report are Stephen Carroll, RAND senior economist; Deborah Hensler, RAND fellow and professor at Stanford University Law School; Allan Abrahamse, RAND consultant; Jennifer Gross, Scott Ashwood and Elizabeth Sloss, of RAND; and Michelle White, former RAND consultant.

# New Carcinogens Listed in December 2002 Federal Report

*Reviewed by Elizabeth B. Juliano and Carey J. Marousek*

The National Toxicology Program, under the Department of Health and Human Services located at the National Institute of Environmental Health Sciences, issued its biennial report on human carcinogens on December 11, 2002. The report lists “known human carcinogens” as well as “reasonably anticipated carcinogens.” Four substances are newly listed as “known,” one substance was upgraded from “anticipated” to “known” and twelve substances were added to the “reasonably anticipated” category. The total number of substances listed in the report is 228. The report does not present risk assessments of cancer potential.

The 2002 report adds steroidal estrogens, broad spectrum ultraviolet radiation, wood dust, and nickel compounds to the list of “known human carcinogens”. Substances which were upgraded from “reasonably anticipated” to “known” human carcinogens, are beryllium and beryllium compounds.

Steroidal estrogens are commonly used in estrogen replacement therapy (ERT) and in oral contraceptives. Data

from human epidemiology studies show an association between estrogen replacement therapy and the risk of endometrial cancer, and a less consistent increase in the risk of breast cancer. Estrogen-containing oral contraceptives may be associated with an increased risk of breast cancer, but may protect against ovarian and endometrial cancers.

Broad spectrum ultraviolet radiation (UVR) is produced by the sun and artificial sources including sun lamps, tanning beds, medical procedures and in industry for promoting polymerization reactions. There is data that indicates a cause-and-effect relationship between this radiation and skin cancer, cancer of the lip and melanoma of the eye.

Wood dust is created when machines and tools cut, shape and finish wood. The report indicates that unprotected workers have a higher risk of cancers of the nasal cavities and sinuses.

Nickel compounds are used in industry as catalysts, and in batteries, pigments and ceramics. These compounds were



*“I’ll have the barbecued half-pounder, with all the ramifications.”*

by Mike Twohy, published in *The New Yorker* 6/10/2002

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added to the report based on studies of workers showing excessive rates of death from lung and nasal cancers.

Approximately 800,000 workers, including beryllium miners, beryllium alloy makers and fabricators, ceramics workers, missile technicians, nuclear reactor workers, electric and electronic equipment workers, and jewelers are exposed to beryllium and beryllium compounds. The report notes

these workers have a higher risk for lung cancer with increased exposures.

The full report is available at <http://ntp-server.niehs.nih.gov> and hard copies may be ordered at <http://www.ehponline.org> or by writing to the Environmental Health Perspectives, Attn: Order Processing, 1001 Winstead Drive, Suite 355, Cary, NC 27513, or fax 919.678.8696.



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