

round; moreover they must keep the eyes fixed on the work, and from that rotary motion of the wood the eyes contract some injury, since it stimulates the spirits and humors to a vertiginous sort of motion. . . . For carpenters I have no precautions to suggest except this: They should be moderate and not overwork. . . .

Nowadays women sit to weave, but in such a posture that they somehow look as though they were standing. This kind of work is certainly very fatiguing, for the whole body is tasked, both hands, arms, feet, and back, so that every part of the body at once shares in the work. . . . Now an occupation so fatiguing natu-

rally has its drawbacks, especially for women, for if pregnant they easily miscarry and expel the fetus prematurely and in consequence incur many ailments later on. It follows that women weavers, I mean those who are engaged wholly in this occupation, ought to be particularly healthy and robust, otherwise

they break down from overwork and as they get on in years are compelled to abandon this trade. . . . Therefore in work so taxing moderation would be the best safeguard against these maladies, for men and women alike; for the common maxim "Nothing to excess" is one that I excessively approve.

Bernardino Ramazzini: The Father of Occupational Medicine

Bernardino Ramazzini was born in Carpi, Italy, in 1633. While he was still a medical student at Parma University, his attention was drawn to diseases suffered by workers. In 1682, when he was appointed chair of theory of medicine at the University of Modena, Ramazzini focused on workers' health problems in a systematic and scholarly way.¹ He visited workplaces, observed workers' activities, and discussed their illnesses with them. The medicine courses he taught were dedicated to the diseases of workers.²

Ramazzini systematized the existing knowledge and made a large personal contribution to the field by collecting his observations in *De Morbis Artificum Diatriba* [Diseases of Workers]; the first edition was printed in Modena in 1700 and the second in Padua in 1713. Primarily on the basis of this work, Ramazzini is called "the father of occupational medicine."^{3,4}

Each chapter of the *De Morbis Artificum Diatriba* contains a description of the disease associated with a particular work activ-

ity followed by a literature analysis, workplace description, questions for workers, disease description, remedies, and advice. The clinical picture was directly observed by Ramazzini, who questioned workers about their complaints. He regularly asked his patients about the kind of work they did and suggested that all physicians do the same.⁴

Ramazzini realized that not all workers' diseases were attributable to the working environment (chemical or physical agents). He observed that a variety of common workers' diseases appeared to be caused by prolonged, violent, and irregular motions and prolonged postures. Such cumulative trauma and repetitive-motion injuries have recently been called the occupational epidemic of the 1990s.⁵ Ramazzini studied the relationship between certain disorders and postural attitudes, repetition of movements, and weight lifting and anticipated some preventive measures. ■

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