

# Optimizing fertility potential in spinal cord injured men

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Over the past 3 decades significant therapeutic inroads have allowed spinal cord injured men to achieve biologic paternity. Prior to the introduction of electroejaculation in the mid-1980's, men with spinal cord injury were considered "hopelessly infertile". With the application of semen retrieval techniques such as electroejaculation (used to achieve the first reported pregnancy by a quadriplegic male)<sup>1</sup> and penile vibratory stimulation<sup>2</sup> these patients are now "potentially fertile". Additionally, the coincident application of assisted reproductive technology to these couples has yielded pregnancy rates similar to those in able-bodied subfertile cohorts.<sup>3</sup> Thus the field of Reproductive Rehabilitation has evolved to complement the traditional areas of Sexual Rehabilitation and Bladder Rehabilitation of spinal cord injured men.

Along with the realization of these reproductive milestones, advances have also progressed in the description of spermatogenesis<sup>4</sup> and semen quality following spinal cord injury.<sup>5-8</sup>

This article by Leduc is emblematic of the spectrum of effort during the development of Reproductive Rehabilitation. The authors have applied various medical, technical and surgical methods with and without assisted reproductive techniques to optimize pregnancy rates to 64% of their spinal cord injured population.<sup>9</sup> These results and those of other centers dedicated to the quality of life of spinal cord injured men are testimony to the fertility potential of men

even after spinal cord injury. As the hurdle of semen retrieval has been successfully transcended in over 90% of such men, our research objectives should be directed toward the optimization of semen quality associated with neurogenic infertility. □

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