

Roller Coasters and Retinal Detachment

Lauren Pickel¹, Miguel Cruz Pimentel², MD, Sumana Naidu², MD,
Robert G. Devenyi², MD FRSC, Efrem D. Mandelcorn², MD FRSC

¹Temerty Faculty of Medicine, University of Toronto

²Department of Ophthalmology and Vision Sciences, University of Toronto, Toronto, Ontario, Canada

Methods: A literature search was performed with terms ‘retinal detachment’ and ‘traumatic’ or ‘roller coaster’ or ‘bungee jumping’. Articles involving direct traumatic injury (coup, or contrecoup type 2) were excluded. All citing articles of relevant existing reports were scanned for additional reports of acceleration associated retinal detachment. Two original cases are additionally reported.

Results: We report two cases of retinal detachment following roller coaster riding. A literature search reveals two previous such cases, and an additional three cases following bungee jumping. In all cases the affected individual had known risk factors for retinal detachment, with the most common being myopia.

Conclusion: Rapid acceleration/deceleration forces such as those experienced on roller coasters may lead to retinal detachment in predisposed individuals, particularly those with high myopia.