

Mid to Long-Term Outcomes and Survivorship of Athletes **Undergoing Primary Hip Arthroscopy: A Systematic Review**

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INTRODUCTION

There is a paucity of literature regarding aggregate midterm outcomes and survivorship after primary hip arthroscopy in the athlete population

AIM

The purpose of this study is to evaluate minimum 5-year outcomes and survivorship after primary hip arthroscopy for femoroacetabular impingement syndrome (FAIS).

METHOD

A systematic review of current literature was performed with the following keywords: "hip," "femoroacetabular impingement," "arthroscopic," "arthroscopy," "outcomes," "athlete," and "sport" in PubMed, Cochrane, and Scopus in April 2022 using the Preferred Reporting Items for Systematic Reviews and Metaanalyses (PRISMA) guidelines. Study and demographic variables such as title, author, publication date, study design, demographic, number of hips, follow-up time, study period, indications for hip arthroscopy, patient-reported outcome scores (PROs), and rates of secondary surgeries and conversion to total hip arthroplasty (THA). Radiographic, intraoperative surgical treatment, and clinical benefit was documented as well.

Table 2.Sports Type

Table 1. Return to Sport Definition

Study Maldonado et al

Chen et al. 2019

Byrd et al. 2009 Perets et al. 2018

Lindman et al. 20

Jimenez et al. 202

Jimenez et al. 202

Author and Year	Impingement		Endurance		Cutting		Contact		Flexibility
Maldonado et al. 2020 ²¹	0 (0.0)		0 (0.0)		0 (0.0)		0 (0.0)		0 (0.0)
Jimenez et al. 2021 ¹⁴	5 (6.2)		18 (22.2)		15 (18.5)		15 (18.5)		4 (4.9)
Chen et al. 2019⁴	0 (0.0)		Running	52 (100)	0 (0.0)		0 (0.0)		0 (0.0)
Byrd et al. 2009 ³	Equestr ian	1 (6.7)	0 (0.0)		Basketb all	2 (13.3)	Footba II	3 (20.0)	Martial arts
									Cheerleading
Perets et al. 2018 ²⁵	Hockey	3 (4.5)	Track/ru nning	15 (22.7)	Soccer	19 (28.8)	Footba II	2 (3.0)	Dance/cheer eading
	Horseb ack Riding	1 (1.5)	Triathlo n	1 (1.5)	Basketb all	3 (4.5)	Wrestli ng	1 (1.5)	Gymnastics
Lindman et al. 2020 ²⁰	lce Hockey	9 (10.7)	Biathlon	1 (1.2)	Soccer	39 (46.4)	Americ 1 an (Footba II	1 (1.2)	Dancing
	Bandy	1 (1.2)	Track and Field	1 (1.2)	Basketb all	1 (1.2)			Figure Skating
									Martial Arts
Jimenez et al. 2021 ¹³	Hockey	6%	Distanc e running	12%	Soccer	15%	Footba II	15%	Dance
					Basketb all	7%			
Menge et al. 2021 ²³	lce Hockey	6 (10)	Swimmi ng	2 (3.3) 1 (1.7)	Soccer	9 (15)	Footba II	6 (10)	Dance
			Running		Basketb all	4 (6.7)			Ice skating
									Cheer

	Return to Sport Definition
. 2020 ²¹	Return to sport at any level after primary hip arthroscopy. who returned at same or higher levels and those who retu
	Return to sport at any level after primary hip arthroscopy. who returned at a higher level, those who returned at the a lower level.
	Return to sport at previous level after surgery.
325	Return to sport at any level after primary hip arthroscopy. who returned at a higher level, those who returned at the a lower level.
)20 ²⁰	Reported a Hip Sports Activity Scale of 5-8 at minimum 5-v
21 ¹³	Returned to preoperative sport at preoperative level with
22 ¹⁵	Self-reporting same or greater level when returning to spo









Return to sport was stratified by those urned at lower levels.

Return to sport was stratified by those same level, and those who returned at

Return to sport was stratified by those same level, and those who returned at

year follow-up.

out hip-related issues.

ort after surgery

RESULTS

- Ten studies that captured data on 691 hips were included in this study.
- Six studies had level IV evidence and four studies had level III evidence.
- Follow-up ranged from 60 months to 14 years.
- Femoroacetabular impingement syndrome (FAIS) was the most in nine out of 10 studies.
- Eight out of 10 studies reported athlete sport-type. All 10 studies reported PROs and rates of achieving psychometric thresholds.
- Nine out of 10 studies reported achieving at least one psychometric threshold at a rate of least 75%.
- Rates of secondary arthroscopy and conversion to THA varied from 0% -15.2% and 0% - 33.3%.

CONCLUSIONS

Athletes who underwent primary hip arthroscopy demonstrated favorable outcomes and high rates of clinical benefit at midterm follow-up. Additionally, they demonstrated high rates of survivorship. The most common indication for surgery was FAIS and secondary arthroscopy and conversion to THA rates varied considerably across studies.



common surgical indication and cited