



# Letter to the Editor

## Letter to the Editor: Polyethylene Liner Dissociation is a Complication of the DePuy Pinnacle Cup: A Report of 23 Cases

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To the editor,

We read the study by Yun and colleagues [8] with great interest. We would like to share some comments that could contribute to a better interpretation of this paper.

It is our institutional policy to select implants for primary hip and knee surgery that have demonstrated good results after at least 10 years of fol-

lowup. This policy makes us sensitive to reports like the one done by Yun and colleagues, which addresses a potential complication related to an implant frequently used by our group of surgeons. We conducted a thorough analysis of the study by Yun and colleagues, as well as additional reports from national arthroplasty registries in order to make an accountable decision regarding the use of this implant for upcoming patients.

One of the main concerns arising from this paper is whether this report only illustrates a possible mechanism of failure, or if it should warn clinicians about an imminent increase in the rate of failure (and therefore, a decrease in prosthesis survival). If the latter is so, presumably we should

discourage the use of the implant. We do not believe this is the case.

After a literature search, we reviewed five additional case reports [1, 3–6] also describing the failure of DePuy Pinnacle (Warsaw, IN, USA) acetabular cup by means of dissociation of the polyethylene liner from the metal back. These studies, as well as Yun and colleagues [8], confirm this complication as a mechanism of failure of the device. However, neither the current study nor previously published cases can provide sufficient evidence on the effect of this mode of failure on implant survival rates. Moreover, frequency estimations made by Yun and colleagues [8] could be misinterpreted as an indicator of long-term performance. In turn, national registries, which analyze survival rates on large population cohorts, remain a more reliable source of information to answer this question.

Reports from the Australian [2] and United Kingdom (UK) [7] registries include a 10-year followup survival analysis for the aforementioned implant. After excluding metal-on-metal surfaces and modular-neck femoral components, all combinations including DePuy Pinnacle acetabular

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cup (Warsaw, IN, USA) presented a 10-year survival rate of 94% or higher, which is comparable with the most durable implants presented in those reports. In addition, the UK registry describes a low revision rate at 10-years when this implant was used with a polyethylene liner, regardless of the material of the prosthetic head [7].

In conclusion, this paper is valuable since it generates awareness about a possible mechanism of failure and encourages clinicians to try to prevent it. However, this information should be considered in light of the registry studies that exhibit outstanding long-term performance.

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