

The Composition of PRP Produced from 5 Major PRP Devices: A Comparison Study

PRP Device	Process Vol. (mL)	Baseline PLT Count (x10 ³ /μL)	PRP Conc. Vol. (mL)	PRP PLT Conc. (x10 ³ /μL)	Total PLT Delivered (x10 ³)	PLT Yield (%)	Increase over Baseline	CD 34 ⁺ Content
SmartPrep	60	179.4	6.9	1027	7141	66.7	5.8	65,627
Magellan	59.2	179.4	6.8	934	6325	60.1	5.3	16,173
Angel	59.6	179.4	7.0	677	4742	44.7	3.8	11,055
GenesisCS	60	173.8	7.5	494	3704	35.5	2.8	35,990
RegenKit	16	177.6	10.5	97	996	33.0	0.5	1,347

Study Design: The purpose of this study was to evaluate the composition of PRP produced by 5 major commercially available systems. Blood from 5 different donors was used to generate PRP on each system using the recommended manufacturer's instruction. Complete blood count and CD34⁺ count evaluations were completed on all baseline and PRP samples. Mean results for all 5 donors are shown above.

Results: The Harvest SmartPrep system produced PRP with the **highest platelet concentration, platelet yield, increase over baseline, and CD34⁺ content** among the 5 systems tested.