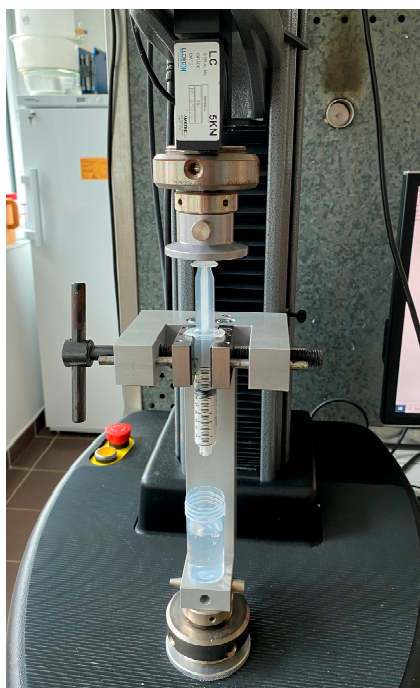


## Supplementary Materials

**Table S1.** Quantitative SEM and light microscopy analysis of the percentage of remaining cement and newly formed bone after implantation of HBS *versus* HBS + blood composite.

Analyses	Remaining cement (%)	Newly formed bone (%)	Non-mineralized tissue (%)
<i>SEM analysis</i>			
HBS	51.91 ± 12.33	21.51 ± 7.15	26.59 ± 7.22
HBS + blood	16.11 ± 9.04	42.85 ± 18.4	41.05 ± 19.4
<i>Light microscopy analysis</i>			
HBS	79.03 ± 6.87	8.58 ± 4.83	12.39 ± 7.64
HBS + blood	13.07 ± 7.31	41.82 ± 14.68	45.11 ± 21.49



**Figure S1.** Injectability setup to measure the applied injection force in order to extrude the CPC paste through syringe without cannula.

**Table S2.** IRB certificate from harvested human blood (information provided by Cambridge Bioscience, UK).

**Donor Information:**

Blood Group	O RhD pos	HCV	Negative
Age / Gender	28 / M	Syphilis	Negative
Ethnicity	Black	HLA-A2 Antigen	<i>not tested</i>
HIV 1&2, & p24 Antigen	Negative	Reference Number	RDN-4110990
HBsAg	Negative		

**Full Blood Count Indices (Pre-Donation):**

WBC	$6.18 \times 10^9/\text{L}$	PLT	$216 \times 10^9/\text{L}$
RBC	$5.76 \times 10^{12}/\text{L}$	RDW	12.8 %
HGB	161 g/L	Neut	$4.31 \times 10^9/\text{L}$
HCT	0.513 L/L	Lymph	$1.29 \times 10^9/\text{L}$
MCV	89.1 fL	Mono	$0.40 \times 10^9/\text{L}$
MCH	28 pg	EO	$0.16 \times 10^9/\text{L}$
MCHC	314 g/L	Baso	$0.02 \times 10^9/\text{L}$