

## Supplementary Online Content

Wu R, Yang X, Jin X, et al. Three-dimensional volumetric analysis of 3 fat-processing techniques for facial fat grafting: a randomized clinical trial. *JAMA Facial Plast Surg*. Published online January 11, 2018. doi:10.1001/jamafacial.2017.2002

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This supplementary material has been provided by the authors to give readers additional information about their work.

**eTable 1. Percentage volume maintenance of different fat-processing groups in 30 cases**

N	Gender	Age (y)	Group	Injected Fat Volume (ml)	Percentage volume maintenance			
					Post-1m	Post-3m	Post-6m	Post-12m
1	Female	24	CPF	15	52.13%	48.39%	42.95%	-
2	Male	22	CPF	32	45.82%	41.91%	39.65%	38.51%
3	Female	19	CPF	35	45.06%	44.24%	43.51%	41.57%
4	Male	21	CPF	2.8	54.00%	51.82%	47.93%	46.14%
5	Female	25	CPF	37	43.98%	42.09%	39.71%	-
6	Female	27	CPF	15	45.90%	43.01%	40.69%	38.79%
7	Female	45	CPF	2	54.65%	48.10%	45.40%	44.30%
8	Female	22	CPF	17	49.96%	47.57%	46.17%	-
9	Female	25	CPF	30	47.76%	43.13%	42.04%	41.54%
10	Male	28	CPF	40	48.90%	42.29%	39.00%	37.99%
11	Female	25	C	14	39.46%	31.88%	30.83%	-
12	Female	21	C	31	42.45%	41.83%	36.20%	34.22%
13	Female	23	C	33	40.25%	36.36%	37.21%	35.48%
14	Male	19	C	45	37.51%	35.89%	34.57%	-
15	Male	39	C	40	43.72%	42.24%	40.50%	-
16	Female	20	C	32	45.47%	44.37%	37.95%	36.56%
17	Female	27	C	18	37.94%	34.84%	32.94%	31.30%
18	Female	33	C	16	38.63%	34.20%	30.01%	29.11%
19	Female	19	C	29	41.87%	39.08%	37.83%	36.32%
20	Female	21	C	18	45.42%	42.81%	39.96%	38.11%
21	Female	24	S	14	41.43%	40.70%	37.24%	35.80%
22	Male	10	S	40	31.61%	28.68%	25.88%	25.20%
23	Female	10	S	40	35.80%	33.06%	32.90%	32.06%
24	Female	23	S	40	35.81%	31.48%	30.62%	29.85%
25	Female	16	S	48	37.64%	32.99%	28.51%	28.36%
26	Female	10	S	38	44.61%	42.45%	32.20%	31.73%
27	Female	11	S	25	38.17%	35.00%	34.54%	34.12%
28	Female	28	S	30	32.46%	32.30%	28.78%	28.04%
29	Female	20	S	25	36.80%	32.58%	31.66%	-
30	Male	10	S	22	35.21%	31.04%	28.10%	-

CPF: Cotton pad filtration, C: Centrifugation, S: Sedimentation.

**eTable 2. Percentage Volume Maintenance of the Fat-Processing Groups at 1-, 3-, 6-, and 12-Month Follow-up**

Group	Volume Maintenance, %			
	1 mo	3 mo	6 mo	12 mo
Cotton pad filtration(n=10)				
Range	44-55	42-52	39-48	38-46
Mean(SD)	49(4)	45(3)	43(3)	41(3)
Centrifugation(n=10)				
Range	38-45	32-44	30-40	29-38
Mean(SD)	41(3)	38(4)	36(4)	34(3)
Sedimentation(n=10)				
Range	32-45	29-42	26-37	25-36
Mean(SD)	37(4)	34(4)	31(4)	31(3)

**eTable 3. Covariance analysis (grouping, gender, age, BMI-1m factor)**

<b>Variables</b>	<b>DOF</b>	<b>Mean square</b>	<b>F value</b>	<b>P value</b>
Grouping factor	2	0.02811658	24.96	<.0001
Gender factor	1	0.00000556	0.00	0.9446
Age factor	1	0.00138538	1.23	0.2784
BMI-1m	1	0.00333061	2.96	0.0984

**eTable 4. Covariance analysis (grouping, gender, age, BMI-3m factor)**

<b>Variables</b>	<b>DOF</b>	<b>Mean square</b>	<b>F value</b>	<b>P value</b>
Grouping factor	2	0.02617171	16.39	<.0001
Gender factor	1	0.00003142	0.02	0.8896
Age factor	1	0.00013883	0.09	0.7706
BMI-3m	1	0.00246405	1.54	0.2261

**eTable 5. Covariance analysis (grouping, gender, age, BMI-6m factor)**

<b>Variables</b>	<b>DOF</b>	<b>Mean square</b>	<b>F value</b>	<b>P value</b>
Grouping factor	2	0.02536407	20.11	<.0001
Gender factor	1	0.00032107	0.25	0.6185
Age factor	1	0.00001378	0.01	0.9176
BMI-6m	1	0.00055745	0.44	0.5125

**eTable 6. Covariance analysis (grouping, gender, age, BMI-12m factor)**

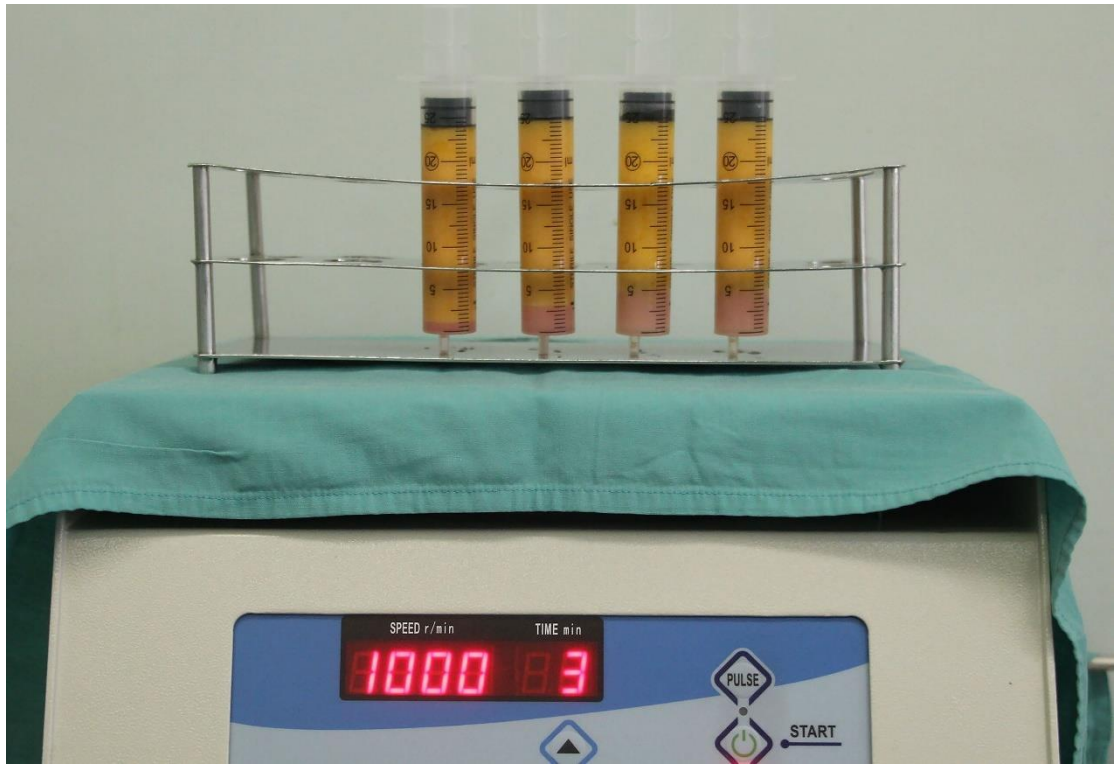
<b>Variables</b>	<b>DOF</b>	<b>Mean square</b>	<b>F value</b>	<b>P value</b>
Grouping factor	2	0.01322109	12.38	0.0008
Gender factor	1	0.00126062	1.18	0.2957
Age factor	1	0.00060009	0.56	0.4659
BMI-12m	1	0.00002791	0.03	0.8739



**eFigure 1A.** pre-sedimentation



**eFigure 1B.** post-sedimentation



**eFigure 1C.** pre-centrifugation

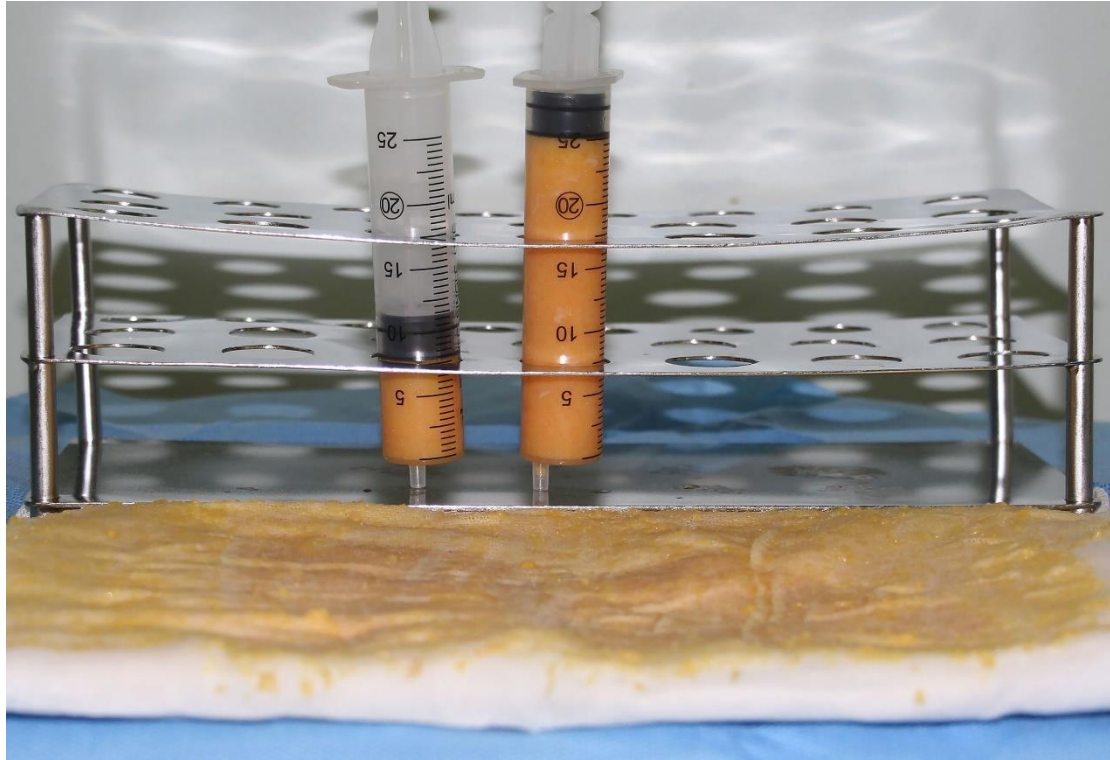


**eFigure 1D.** post-centrifugation





**eFigure 1E.** the cotton pad filtering



**eFigure 1F.** post-filtration (the residual fat tissue left on the cotton pad was collected again for implantation)

<b>Dimensions</b>	
Minimum dimensions	-52.5837
Maximum dimensions	27.8164
Dimension delta	80.4001
<b>Volume</b>	<b>15769.8578</b>

**eFigure 2.** facial volumetric differences of the patient at post-1m

<b>Dimensions</b>	
Minimum dimensions	-52.5837
Maximum dimensions	27.8164
Dimension delta	80.4001
<b>Volume</b>	<b>15483.8786</b>

**eFigure 3.** facial volumetric differences of the patient at post-3m

<b>Dimensions</b>	
Minimum dimensions	-52.5837
Maximum dimensions	27.8164
Dimension delta	80.4001
<b>Volume</b>	<b>15227.0540</b>

**eFigure 4.** facial volumetric differences of the patient at post-6m

<b>Dimensi</b>		
Minimum ...	-24.4317	-51.2828
Maximum ...	34.2450	12.7043
Dimensio...	58.6767	63.9871
<b>Volume</b>	<b>14551.1048</b>	

**eFigure 5.** facial volumetric differences of the patient at post-12m