

French catheter scale

From Wikipedia, the free encyclopedia

The **French scale** or **French gauge** system is commonly used to measure the size of a catheter. It is most often abbreviated as Fr, but can often be seen abbreviated as Fg, Ga, FR or F. It may also be abbreviated as CH or Ch (for Charrière, its inventor).

The French size = 3 times the diameter in millimeters. A round catheter of 1 French has an external diameter of $\frac{1}{3}$ mm,^[1] and therefore the diameter of a round catheter in millimetres can be determined by dividing the French size by 3:

$$D \text{ (mm)} = \text{Fr} * 3$$

or

$$\text{Fr} = D \text{ (mm)} / 3$$

For example, if the French size is 9, the diameter is 3 mm.

From the basic math equation $C = \pi d$, it follows that the catheter's circumference in mm is only slightly (about 4.7%) greater than the French size.

An increasing French size corresponds to a larger external diameter. This is contrary to needle-gauge size, where an increasing gauge corresponds to a smaller diameter needle.

The French size is a measure of the **external diameter** of a catheter (not internal drainage channel). So, for example, if a two-way catheter of 20 Fr is compared to a 20 Fr three-way catheter, they both have the same external diameter but the two-way catheter will have a larger drainage channel than the three-way. Three-way catheters accommodate an extra channel for irrigation within a similar external diameter.

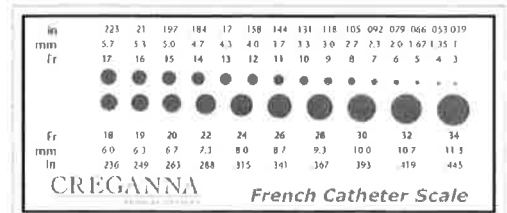
The **French gauge** was devised by Joseph-Frédéric-Benoît Charrière, a 19th-century Parisian maker of surgical instruments, who defined the "diameter times 3" relationship.^[2]

Contents

- 1 Size correspondence
- 2 See also
- 3 References
- 4 External links

Size correspondence

French Gauge	Circumference (mm)	Diameter (mm)	Diameter (inches)
3	3.14	1	0.039
4	4.19	1.333	0.053
5	5.24	1.667	0.066
6	6.28	2	0.079
7	7.33	2.333	0.092
8	8.34	2.667	0.105
9	9.42	3	0.118
10	10.47	3.333	0.131
11	11.52	3.667	0.144
12	12.57	4	0.158
13	13.61	4.333	0.170
14	14.66	4.667	0.184
15	15.71	5	0.197
16	16.76	5.333	0.210
17	17.81	5.667	0.223
18	18.85	6	0.236
19	19.90	6.333	0.249
20	20.94	6.667	0.263
22	23.04	7.333	0.288
24	25.13	8	0.315
26	27.23	8.667	0.341
28	29.32	9.333	0.367
30	31.42	10	0.393
32	33.51	10.667	0.419
34	35.60	11.333	0.445



French catheter scale

See also

- Needle gauge comparison chart
- Stubs Needle Gauge

References

2. Iserson, Kenneth V. (1987). "J.-F.-B. Charrière: The man behind the "French" gauge". *Journal of Emergency Medicine* 5 (6): 545–8. doi:10.1016/0736-4679(87)90218-6. PMID 3323304.

External links

- Texloc (http://www.texloc.com/closet/cl_french_scale.html)

Retrieved from "https://en.wikipedia.org/w/index.php?title=French_catheter_scale&oldid=704089819"

Categories: Catheters | Tubing (material)

-
- This page was last modified on 9 February 2016, at 13:41.
 - Text is available under the Creative Commons Attribution-ShareAlike License; additional terms may apply. By using this site, you agree to the Terms of Use and Privacy Policy. Wikipedia® is a registered trademark of the Wikimedia Foundation, Inc., a non-profit organization.