

Draft Cap Tutorial, 17.12.12

How to wear and fix the different cap types

Subtemporal Cap

Subtemporal Caps come with integrated chin belt AND buckles for chest belt.



P_Subtemp-Cut

Chin belt and chest belt are meant to be used ALTERNATIVELY.

Chin belt is quicker to apply, but facilitates the slipping backward of the cap a little bit. In some subjects the chin belt might press against the larynx.

The Chest belts maintain proper hold and position of the cap a little better .

If it is sure, that the chin belt will never be used, the chin belt can be cut off right after the buckles without further precautions.

Infracerebral Cap

The standard version of Infracerebral Cap comes with Chin belt only



P_Infracereb-Cut

Upon request a version with additional buckles for Chest belt is available. If a chest belt is used the chin belt needs less tension.



P CICHWB profile

Both versions come with an additional loose belt, which CAN be used to pull the chin belt away from the larynx.

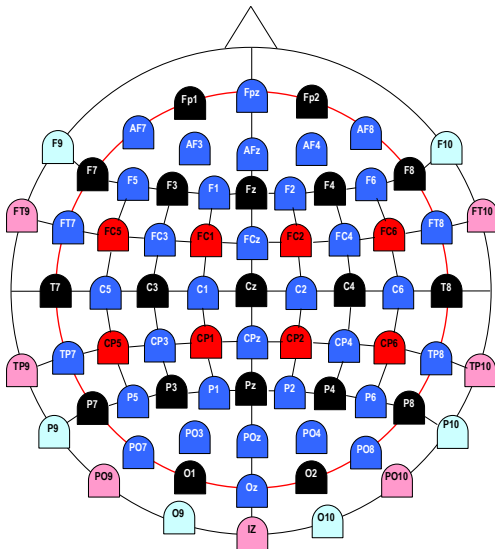


CIC with frontal chin belt half profile

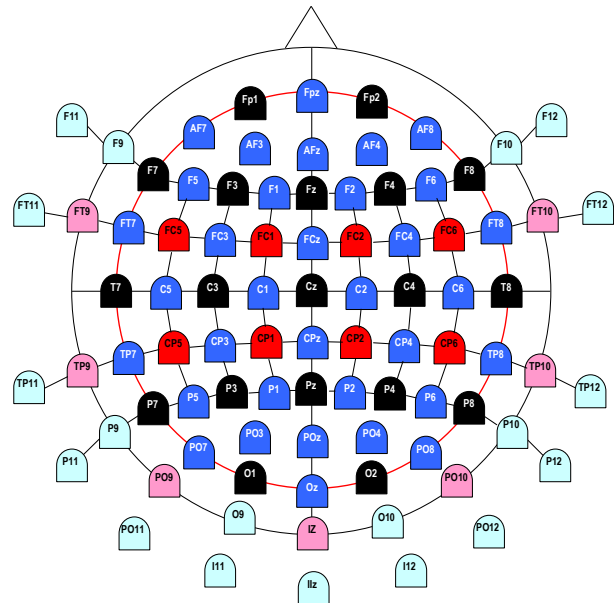
Cap Types: which type for what

Subtemporal Caps and Infracerebral Caps cover different areas. Into a Subtemporal Cap electrodes down to the 9/10-row of 10%-system can be placed, while Infracerebral Caps have room also for the 11/12-row.

Area of Subtemporal Cap in terms of 10%-positions



Area of Infracerebral Cap in terms of 10%-positions



If such low electrode positions as the 11/12-row are used, the Infracerebral Cap MUST be used. If not required by the electrode positions the Infracerebral Cap CAN be used. As the Infracerebral Cap stays better in place and slips less than the Subtemporal Cap it is recommended when movements might impede the cap hold.

But as the Infracerebral Cap subjectively feels more constricting to the subject, under normal conditions the Subtemporal Cap is recommended.

Cap cuts

Further to the above 2 cap types all caps are available in 2 cuts: the average asian and caucasian headshapes differ significantly in several parameters. Based on empirical data we therefore developed caps to fit optimally on either caucasian or asian headshapes.

Cap fabrics: which fabric for what

All caps are available in medium-elasticity and in high-elasticity fabric. The high-elasticity fabric has a lesser life span and it's elasticity is so high that electrode positions need to be corrected manually, especially in repeated measures. Also, high-elasticity is not suited for many electrodes or heavy objects like e.g. Nirs optodes. On the other hand the medium-elasticity fabric's capacity to accommodate to ALL headshapes is limited.

In sum as a standard all caps in sizes 52 and larger (school children and adults) come in medium-elasticity, while cap sizes 32 to 50 (pre-term babies to 5 years old toddlers) come in high-elasticity.

Upon request all caps can be ordered in any fabric.

Cap colours

As a standard all our caps are of white colour. For Nirs it is necessary to use black-coloured caps. Thus, against surcharge, all caps can be ordered in black too.

Cap sizes

Our caps are made in steps of 2 cm head circumference from 32 cm to 64 cm. See some stepstone sizes here:

32 preterm babies
36 mature male newborns
40 three month
44 seven month
48 three years
50 five years
52 six years & small women
54 average adult women
58 average adult men

Catalogue numbers

All caps are available in seventeen sizes 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64.

All caps are available as Subtemporal or as Infracerebral type.

All caps are available in caucasian or asian cut.

All caps are available in medium-elasticity or high-elasticity fabric.

All caps are available in white or black (surcharge) colour.

Infracerebral caps are available with or without extra chest-belt buckles.

This results in 408 different catalogue-numbers:

CUCMW-#	Subtemporal Cap, caucasian cut, medium-elasticity, white, size #
CUAMW-#	Subtemporal Cap, asian cut, medium-elasticity, white, size #
CUCHW-#	Subtemporal Cap, caucasian cut, high-elasticity, white, size #
CUAHW-#	Subtemporal Cap, asian cut, medium-elasticity, white, size #
CICMW-#	Infracerebral Cap, caucasian cut, medium-elasticity, white, size #
CIAMW-#	Infracerebral Cap, asian cut, medium-elasticity, white, size #
CICHW-#	Infracerebral Cap, caucasian cut, high-elasticity, white, size #
CIAHW-#	Infracerebral Cap, asian cut, medium-elasticity, white, size #
CICMWB-#	Infracerebral Cap with buckles, caucasian cut, medium-elasticity, white, size #
CIAMWB-#	Infracerebral Cap with buckles, asian cut, medium-elasticity, white, size #
CICHWB-#	Infracerebral Cap with buckles, caucasian cut, high-elasticity, white, size #
CIAHWB-#	Infracerebral Cap with buckles, asian cut, medium-elasticity, white, size #
CUCMS-#	Subtemporal Cap, caucasian cut, medium-elasticity, black, size #
CUAMS-#	Subtemporal Cap, asian cut, medium-elasticity, black, size #
CUCHS-#	Subtemporal Cap, caucasian cut, high-elasticity, black, size #
CUAHS-#	Subtemporal Cap, asian cut, medium-elasticity, black, size #
CICMS-#	Infracerebral Cap, caucasian cut, medium-elasticity, black, size #
CIAMS-#	Infracerebral Cap, asian cut, medium-elasticity, black, size #
CICHS-#	Infracerebral Cap, caucasian cut, high-elasticity, black, size #
CIAHS-#	Infracerebral Cap, asian cut, medium-elasticity, black, size #
CICMSB-#	Infracerebral Cap with buckles, caucasian cut, medium-elasticity, black, size #
CIAMSB-#	Infracerebral Cap with buckles, asian cut, medium-elasticity, black, size #
CICHSB-#	Infracerebral Cap with buckles, caucasian cut, high-elasticity, black, size #
CIAHSB-#	Infracerebral Cap with buckles, asian cut, medium-elasticity, black, size #

How to order caps with holders/adaptors, slits, marks, extra labels

Given like above, the catalogue-numbers designate only empty caps. In most cases, it will be required that caps are either **prepared** with openings for certain holders or electrodes according to a certain layout, or else **equipped** with holders or electrodes according to a certain layout. This additional information must be stated in plain text.

See “Easycap Cap-Electrode and –Holders Tutorial.doc” for available electrodes / holders.

Prepared Caps can be ordered with either marks or openings. If no holders or electrodes are order, marks or openings are charged extra with the catalogue-numbers MARK or SCHL. The information required is

- a) according to which layout the cap should be marked or slitted?
- b) in case of openings, for which holder should the openings be sized?

Example Marked Cap

- | | | |
|-----|----------|--|
| 1 | CUCMS-58 | (Subtemporal Cap, caucasian cut, medium-elasticity, black, size 58)
Prepared with 130 waterproof marks, stated below, according to Layout M15 |
| 130 | MARK | Waterproof marks on above cap |

Example Slitted Cap

- | | | |
|----|----------|---|
| 1 | CUCHW-48 | (Subtemporal Cap, caucasian cut, high-elasticity, white, size 48)
Prepared with 36 openings for A06, stated below, according to Layout M24 |
| 36 | SCHL | Slits in above cap |

Equipped Caps are equipped with holders or electrodes. There is no additional charge for slitting.

Example Equipped Cap

- | | | |
|----|----------|---|
| 1 | CUCHW-48 | (Subtemporal Cap, caucasian cut, high-elasticity, white, size 48)
Equipped with 36 electrode adaptors A06, stated below, according to Layout M24 |
| 36 | A06 | Electrode adaptor for ring electrodes,
Mounted in above cap |

Electrode sites or whole layouts can be chosen from existing definitions, please see www.easycap.de ..
Additionally it is of course possible to define non-standard sites, e.g. “C3’ is 1 cm anterior to C3”.
It is possible to specify more than 1 layout and/or to mix marks, slits, holders.

Compiled Caps

The above catalogue-numbers apply only when empty caps or caps with holders are ordered. But often compiled caps have their own catalogue-numbers (e.g. “BC-TMS-32-58” is a complete cap including electrodes, labels, quick-connect-interface, etc.). Such superordinated cat-nos. of complete caps use in their bill of materials those caps, that have been termed “standard” in the above paragraphs. Therefore it must be specially mentioned, if a non-standard type, cut, fabric, colour is required.