

2-4

Ages 12+

30 min

FORAMINA!

A Game of Luck and Skull



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HEADS.

Those of us who have one know how hard they work. They sniff, chew, listen, salivate, look around, kiss, spit, sing karaoke, get slapped, and so much more. I love elbows as much as anyone, but on a good day, my favorite elbow barely does half of these things.

When a head makes up its mind to do something, it needs to pick the right cranial nerve and send a signal through a hole in the skull called a foramen. (The plural of foramen is "foramina" for some reason.)

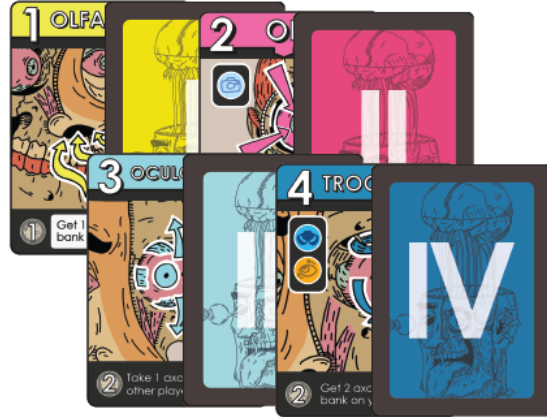
Finally, here's a fast-paced tabletop game that lets you and your friends celebrate these magical little holes. Roll dice, collect Axons, and guide cranial nerves out into the world to fulfill their destinies. It's Foramina!

If you learn better from *CN II* and *CN VIII* than *CN II* alone, our instructional video can be found at:

www.ForaminaGame.com

Components

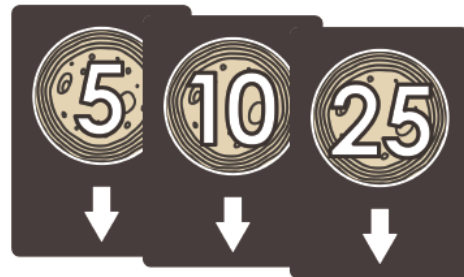
- Cranial Nerve cards (74)



- Foramen cards (11)



- Foramen Cost cards (3)



- Axons (60)



- Player markers (8)



- Dice (2)



- Rulebook

Cranial Nerve Cards

Cranial Nerve number
(dice roll needed to
activate the effect)

Name of nerve

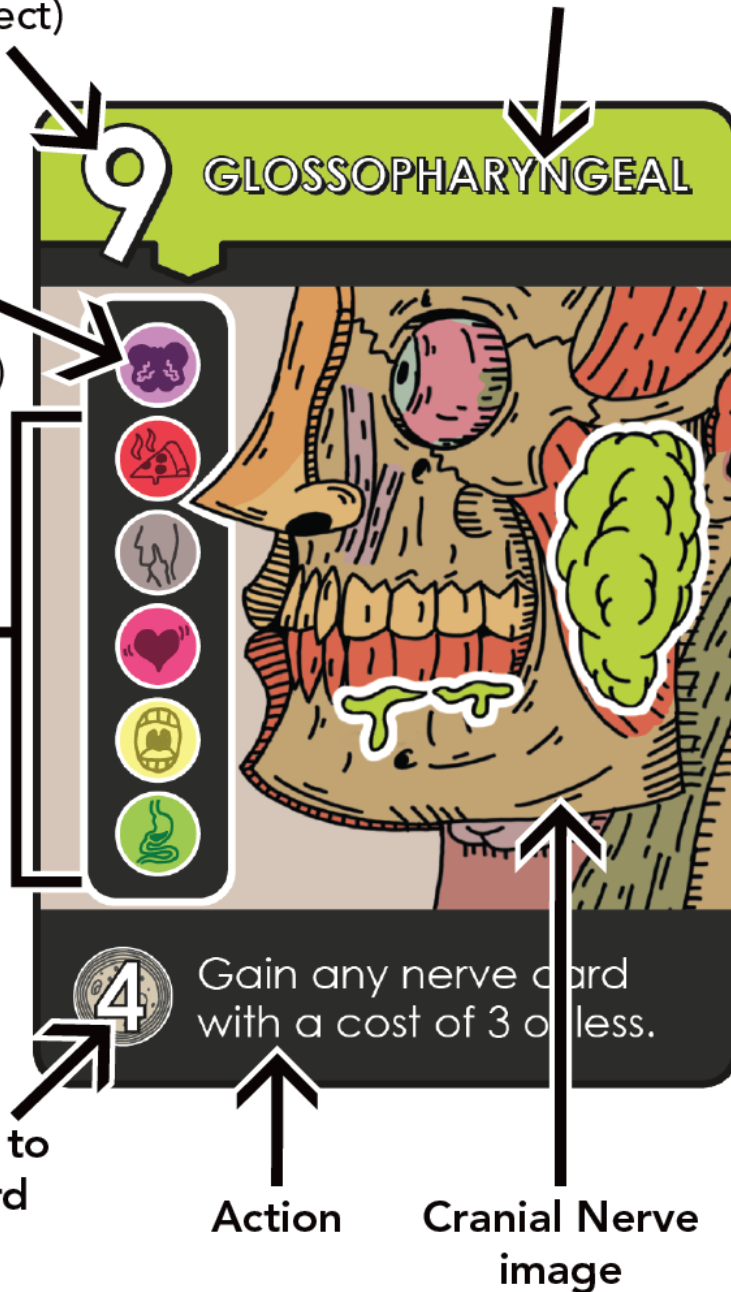
Brainstem
segment icon
(Midbrain, Pons,
Medulla, or none)

Modality icons

Cost in Axons to
purchase card

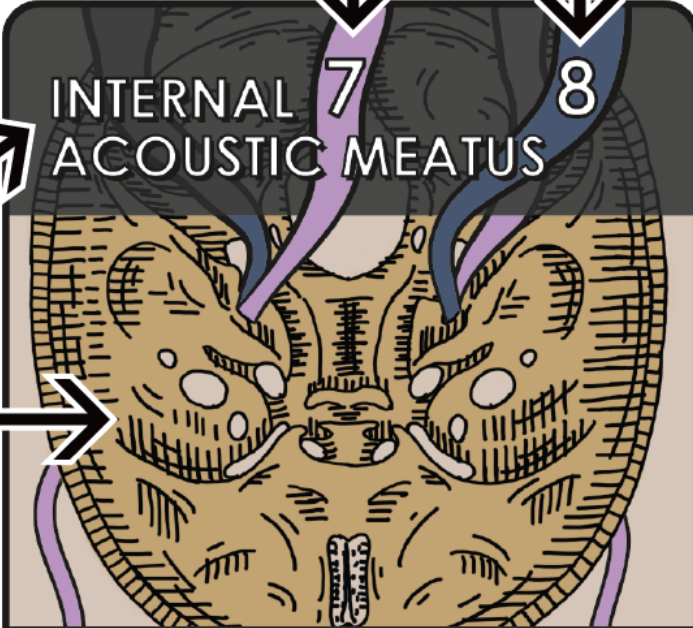
Action

Cranial Nerve
image



Foramen Cards

Cranial Nerve attachments
(labeled by color and number)



The diagram shows a cross-section of the internal acoustic meatus. Two cranial nerves are highlighted: a purple nerve labeled '7' and a blue nerve labeled '8'. Arrows point from the text 'Cranial Nerve attachments (labeled by color and number)' to these nerves. Another arrow points from the text 'Name of foramen' to the label 'INTERNAL ACOUSTIC MEATUS'. A third arrow points from the text 'Foramen image' to the anatomical drawing of the meatus. A fourth arrow points from the text 'Action' to the text 'Take 3 axons from each other player, on your turn.'.

INTERNAL ACOUSTIC MEATUS

7

8

Name of foramen

Foramen image

Take 3 axons from each other player, on your turn.

Action

Setup

Player Setup:

Each player takes one Olfactory Nerve card (Cranial Nerve 1) and one Optic Nerve card (Cranial Nerve 2) and places them face-up in front of them.

Each player takes three Axons. Place the rest in an Axon Bank within reach of all players.

Each player takes both player markers of one color.

Cranial Nerve Setup:

Separate the remaining Cranial Nerve cards into 14 stacks of the same card type (e.g., Trochlear, Vagus) and arrange the stacks face-up in ascending numerical order in two rows, as shown on the next page.

Foramen Card Setup:

Place the three Foramen Cost cards in ascending order (5, 10, and 25) above the Cranial Nerve card supply.

Shuffle the Foramen cards and place them face-down to the right of the Foramen Cost cards.

Draw the top three Foramen cards and place one card face-up below the 5, 10, and 25 Foramen Cost cards, respectively.

Axon bank

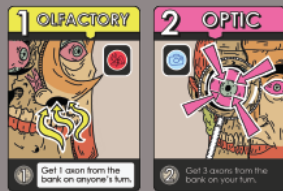


Foramen cards



Foramen Cost cards

Player 1

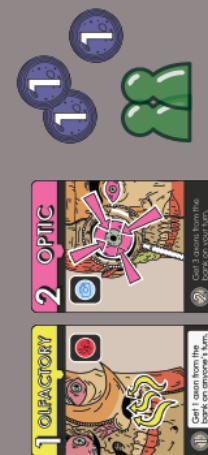


Player 3



Cranial Nerve card supply

Player 2



Gameplay

The player who can make the weirdest shape with their tongue goes first and play proceeds clockwise.

Each player's turn consists of three phases:

1. Roll dice (one or both)
2. Earn Axons
3. Purchase a Cranial Nerve or a Foramen

Roll Dice

Players announce whether they will roll one or both dice. When rolling both dice, the two rolled values are summed together (e.g., $2 + 5 = 7$).

Earn Axons

If the total of the dice roll equals the cranial nerve number on a Cranial Nerve card face-up in front of the player, that player earns Axons or other rewards. Axons are like money in this game; they can be used to buy more Cranial Nerve cards or Foramen cards.

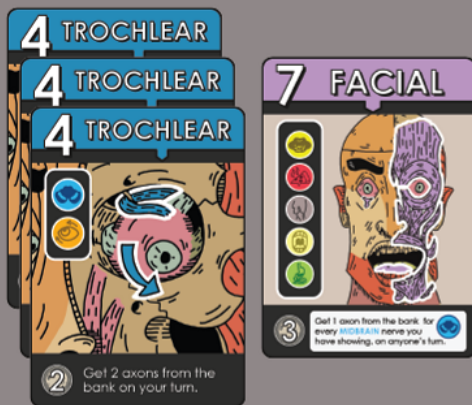
Most cards only allow players to collect Axons on their own turn, but some cards (e.g., Olfactory Nerve card) allow players to collect Axons during anyone's turn. These actions are indicated by a white box surrounding the text at the bottom of the card.

All three Trigeminal Nerve Cards - Ophthalmic, Maxillary, and Mandibular - are activated by a roll of 5.

If a player has two or more copies of a Cranial Nerve card showing, they earn Axons for each card individually.

Example A

Rolling a 4 activates the *Trochlear Nerve* card's action three times.

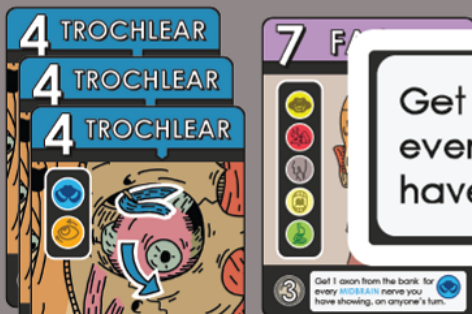


Get 2 axons from the bank on your turn.

+ 6 Axons

Example B


Rolling a 7 activates the *Facial Nerve* card's action.



Get 1 axon from the bank for every MIDBRAIN nerve you have showing, on anyone's turn.



+ 3 Axons

The player gains 1 Axon for each copy of  showing, gaining 3 total.

NOTE: If a player is directed to give Axons to another player and they cannot afford to do so, they pay what they can. The receiving player does not get to fulfill the remainder of the debt from the bank.

Purchase a Cranial Nerve or a Foramen

Now the player may pay Axons to purchase one Cranial Nerve card from the available Cranial Nerve card supply OR one face-up Foramen card per turn.




Purchasing a Cranial Nerve Card

The cost of a Cranial Nerve card is shown in the bottom left corner.

The player pays the cost to the bank and puts the Cranial Nerve card face-up in the play area in front of them.

If the player already owns one or more copies of this Cranial Nerve card, the new card should be stacked on top of the old card(s) so that the cranial nerve number and name of the card(s) underneath are still visible.

Each Cranial Nerve card whose number and name are still visible is considered to be "showing" for the sake of its corresponding action(s) and impact(s) on other cards.

The following are *showing*:
1 Oculomotor, 3 Trochlear,
4 , 4 , 1 

Purchasing a Foramen Card

Only three face-up Foramen cards are available for purchase at any given time.

The cost of a Foramen card is either 5, 10, or 25 Axons, depending on the Foramen Cost card under which it has been placed.

Most Foramen cards are associated with one or more cranial nerves. A player may only purchase that Foramen card if they already own at least one copy of at least one of the corresponding Cranial Nerve cards.

The diagram illustrates the purchase rules for Foramen cards. It shows two scenarios:

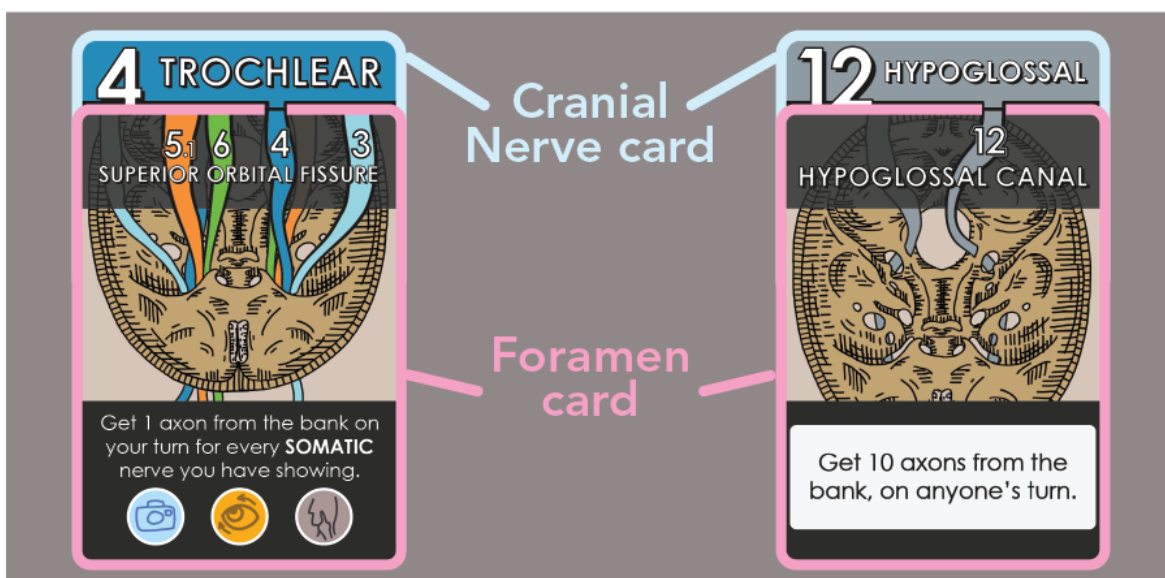
- Player CANNOT purchase Jugular Foramen:** A cost card with the number 5 is shown above the Jugular Foramen card. A white arrow points from the text to the Jugular Foramen card.
- Player CAN purchase Superior Orbital Fissure:** A cost card with the number 10 is shown above the Superior Orbital Fissure card. A white arrow points from the text to the Superior Orbital Fissure card.

At the bottom, five Cranial Nerve cards are shown, each with a cost and a number:

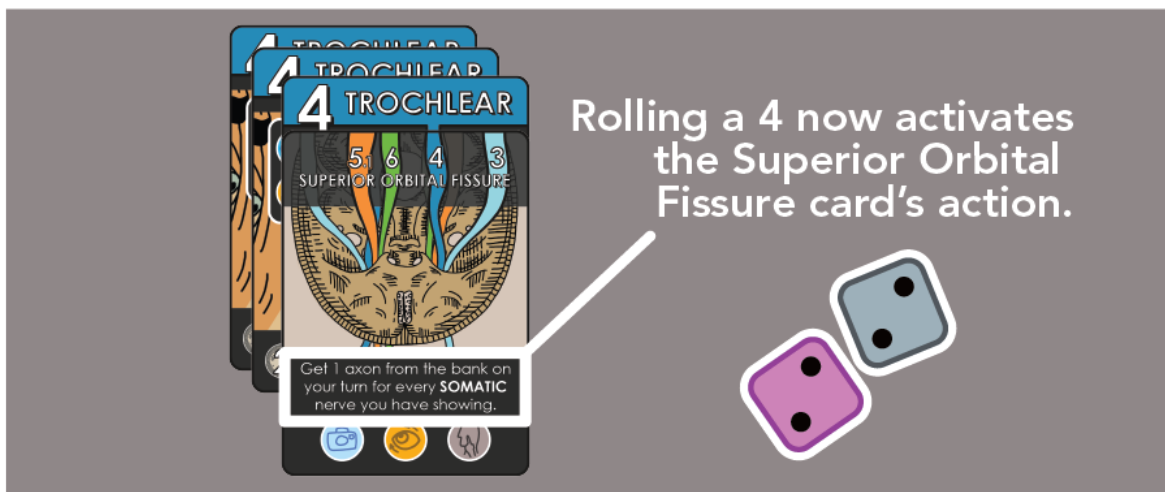
- 1 OLFACTORY:** Cost 1, Number 1. Get 1 axon from the bank on anyone's turn.
- 2 OPTIC:** Cost 2, Number 2. Get 3 axons from the bank on your turn.
- 3 OCULOMOTOR:** Cost 2, Number 2. Take 1 axon from any other player on your turn.
- 4 TROCHLEAR:** Cost 2, Number 2. Get 2 axons from the bank on your turn.
- 5₃ TRIGEMINAL MANIBRANIAL BRANCH:** Cost 5, Number 3. Get 1 axon from the bank on your turn for every MEDULLA nerve you have showing.

Two cost cards are also shown: a 10 and a 1.

Stack the purchased Foramen card on top of a Cranial Nerve card (or stack of Cranial Nerve Cards) to which it connects, so that the cranial nerve number and name of the nerve is still visible. If placed correctly, the Cranial Nerve card and Foramen card should appear to connect.



For the remainder of the game, a dice roll corresponding to the covered Cranial Nerve cards will trigger the action shown on the Foramen card **instead of** the action on the Cranial Nerve cards underneath it.



All Cranial Nerve cards covered by a Foramen card are considered to be "NOT showing" for the rest of the game.

Cranial Nerve card

Foramen card

Rolling a 7 activates the *Facial Nerve* card's action.

Get 1 axon from the bank for every **MIDBRAIN** nerve you have showing, on anyone's turn.

Player only collects 1 Axon

+ 1 Axon

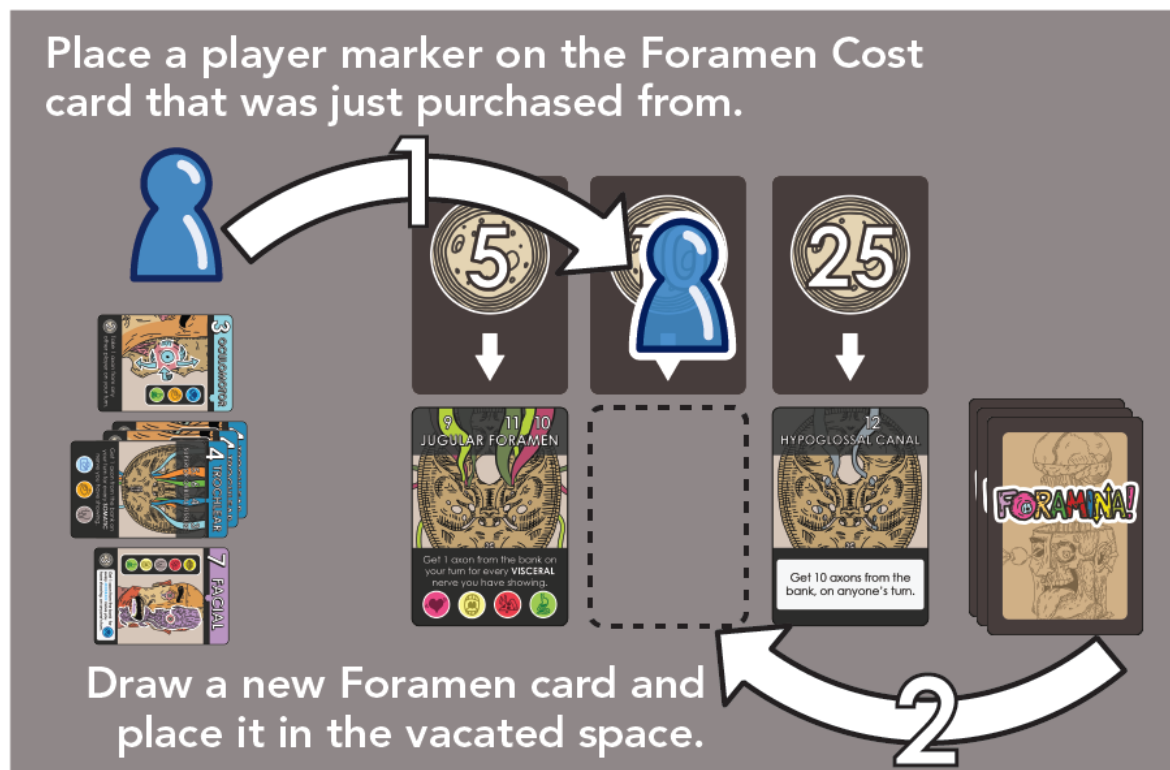
Get 1 axon from the bank on your turn for every **SOMATIC** nerve you have showing.

Get 1 axon from the bank for every **MIDBRAIN** nerve you have showing, on anyone's turn.

NOTE: Three of the Foramen cards—Foramen Magnum, Foramen Spinosum, and Foramen Lacerum—are not associated with specific cranial nerves. When a player purchases one of these Foramen cards, they should simply place the card face-up in front of them. The actions listed on these cards are always in play.

After a player purchases a Foramen card, they should:

- Place one of their Player Markers on the associated Foramen Cost card. This indicates that they may not purchase another Foramen card at that cost;
- Draw a new Foramen card and place it face up into the space vacated by the purchased Foramen card. This new Foramen card is now eligible to be purchased by other players.



Game End

Play continues clockwise until one player has successfully purchased three Foramen cards in total: one from beneath each Foramen Cost card (5, 10, and 25 Axons). Upon purchasing a third Foramen Card and paying its cost, a player wins and the game ends immediately!

Glossary of Icons



Midbrain



Pons



Medulla



General Somatic
Afferent



General Somatic
Efferent



General Visceral
Afferent



General Visceral
Efferent



Special Visceral
Afferent



Special Visceral
Efferent



Special Somatic
Afferent

Credits

Game design: Zach London and Mikaela Stiver

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