

Autonome Zenuwstelsel Sympathische & parasymphathische routes

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LUMC

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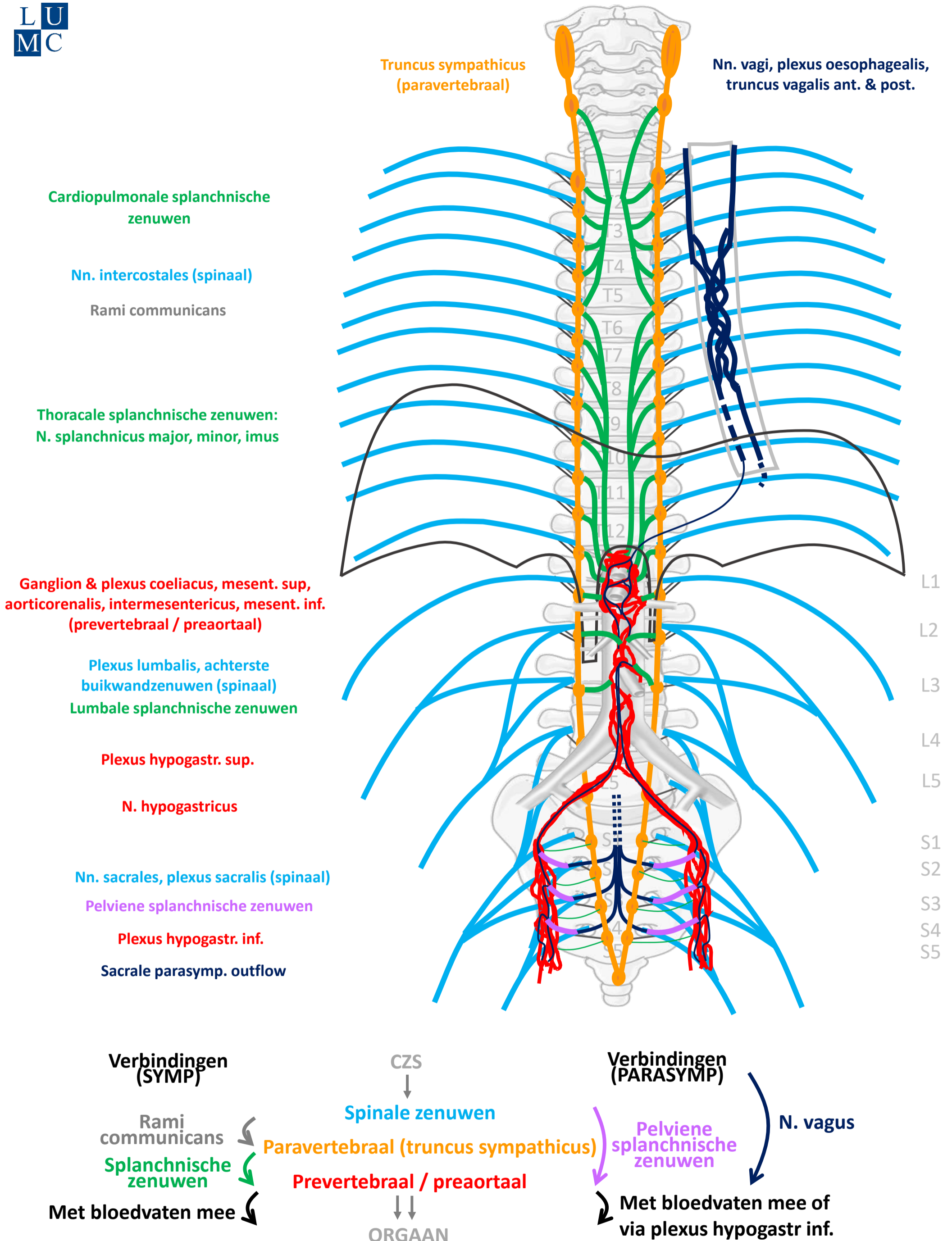


v3, Maart 2023

Vooraf...

- Deze presentatie bouwt voort op het schema uit presentatie 'Autonome Zenuwstelsel Schematisch opgebouwd'.
- Het is aan te raden deze eerst te bestuderen.

Compleet schema



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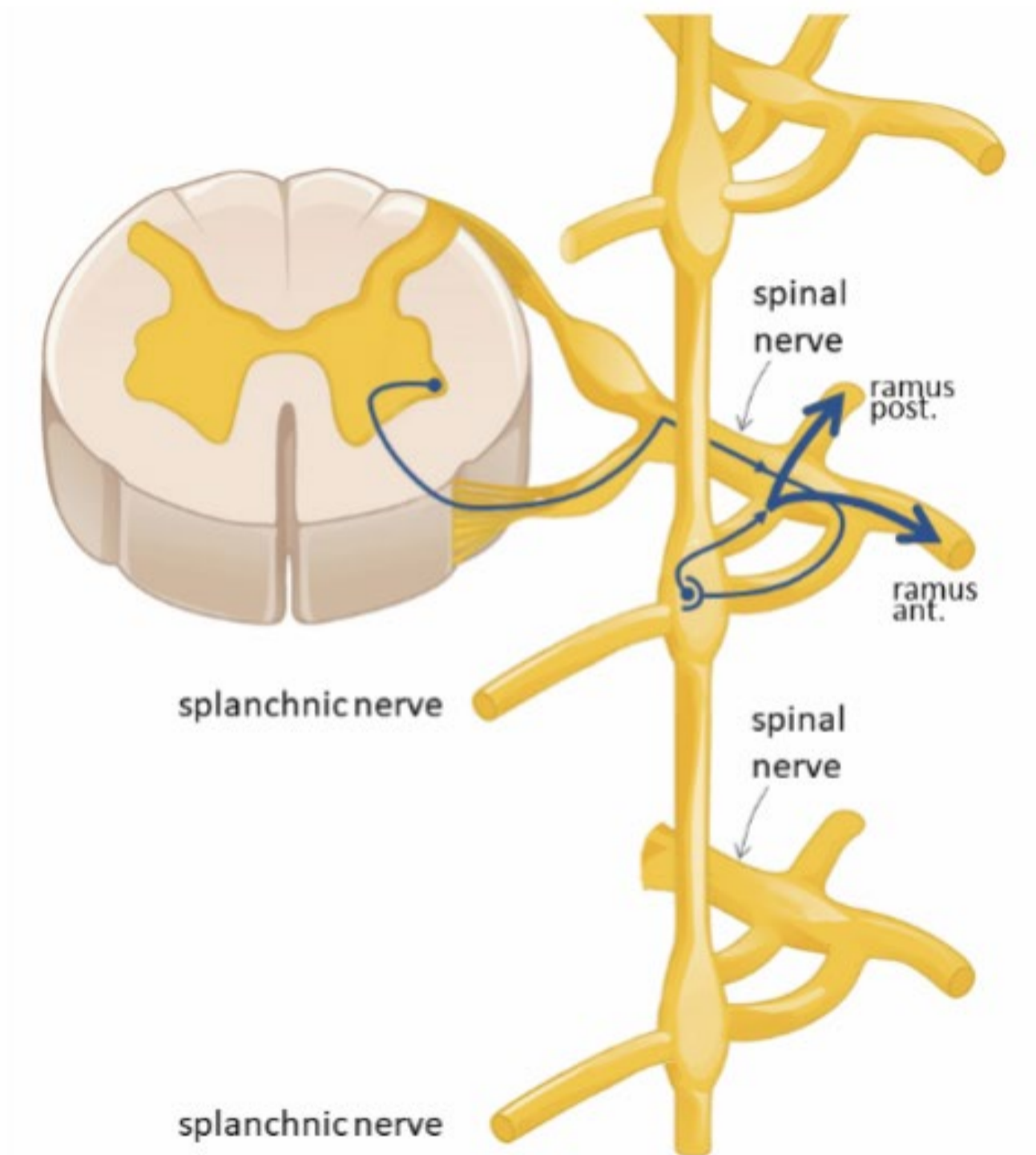
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Sympathisch naar rompwand

- Zweten
- Kippevel
- Perifere vaatvernauwing

Sympathisch naar rompwand



Spinale zenuw

Ramus communicans albus

Paravertebraal (truncus sympathicus) *SYNAPS*

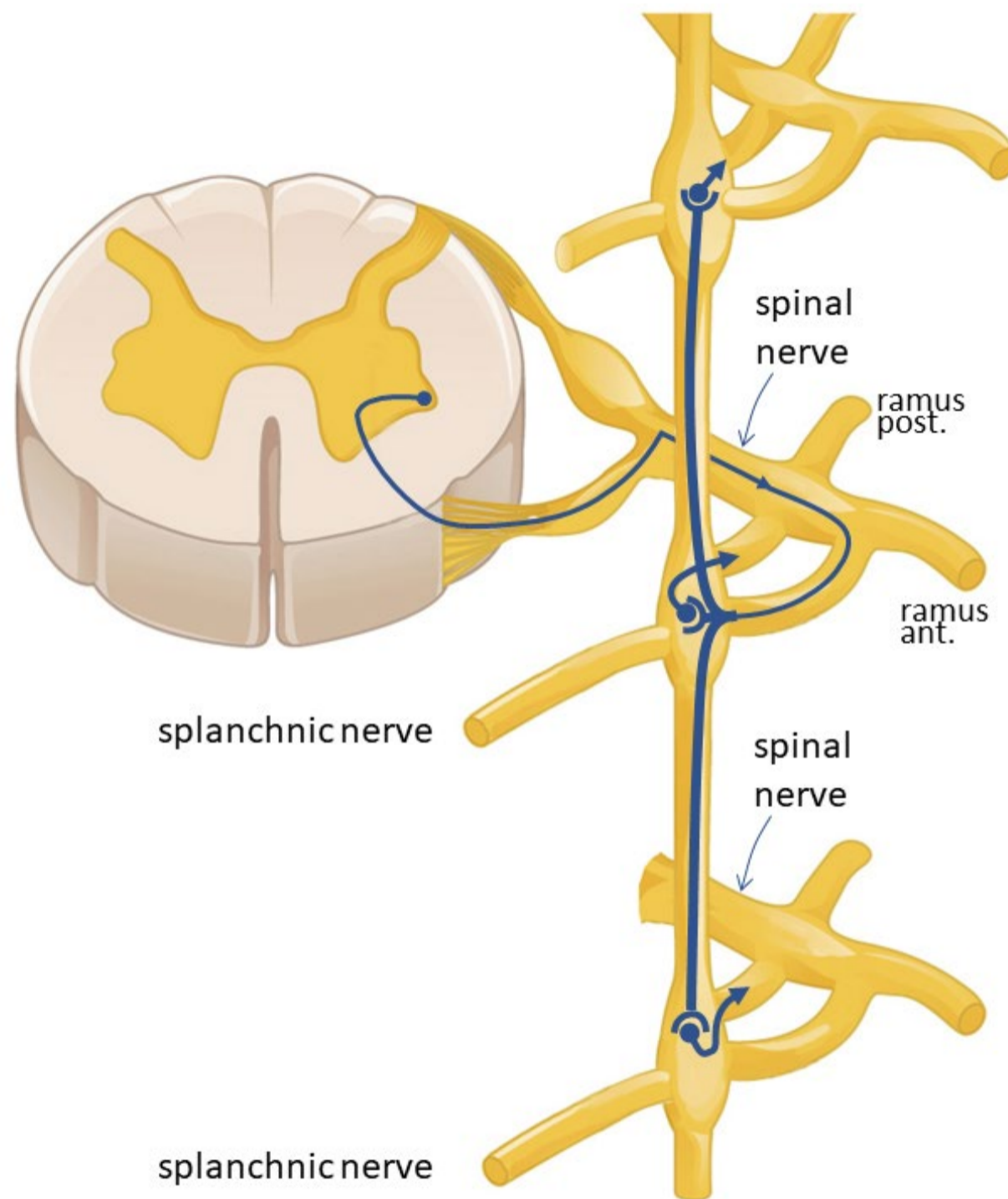
Ramus communicans griseus

Spinale zenuw

Rompwand – zweetklieren, haarfollikels, bloedvaten



Sympathisch naar rompwand



Spinale zenuw

Ramus communicans albus

Paravertebraal (truncus sympathicus) *SYNAPS*

OMHOOG / ZELFDE NIVEAU / OMLAAG

Ramus communicans griseus

Spinale zenuw

Rompwand – zweetklieren, haarfollikels, bloedvaten



Sympathisch naar rompwand



**Truncus sympathicus
(paravertebraal)**

**Nn. intercostales
(spinaal)**

Rami communicans

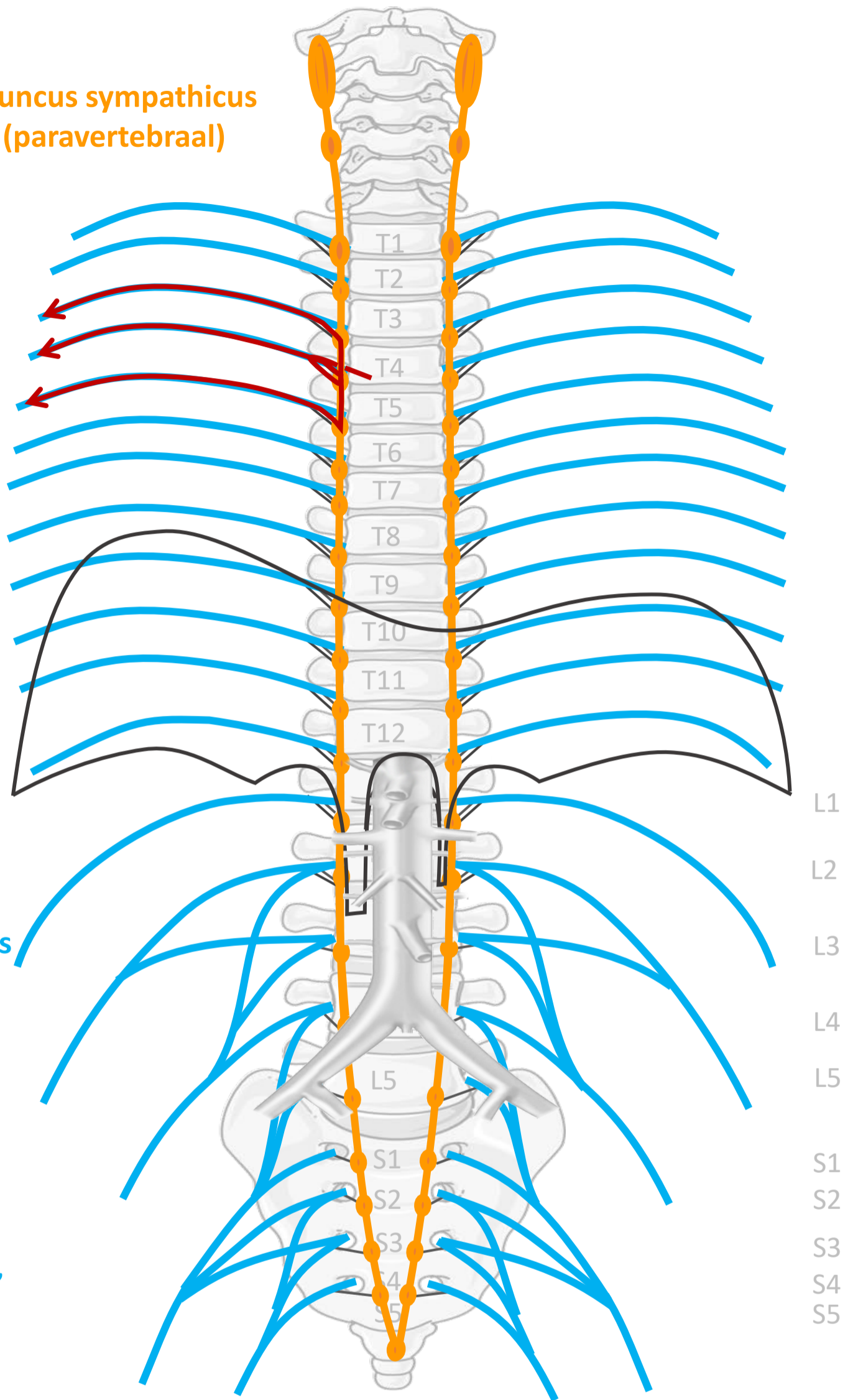
OP ALLE NIVEAUS

**Plexus lumbalis, achterste
buikwandzenuwen, n. femoralis
(spinaal)**

Rami communicans

**Nn. sacrales, plexus sacralis,
n. pudendus (spinaal)**

Rami communicans



**Verbindingen
(SYMP)**

Rami communicans
albus

Rami communicans
griseus



CZS



Spinale zenuwen

Paravertebraal (truncus sympathicus)

Spinale zenuwen



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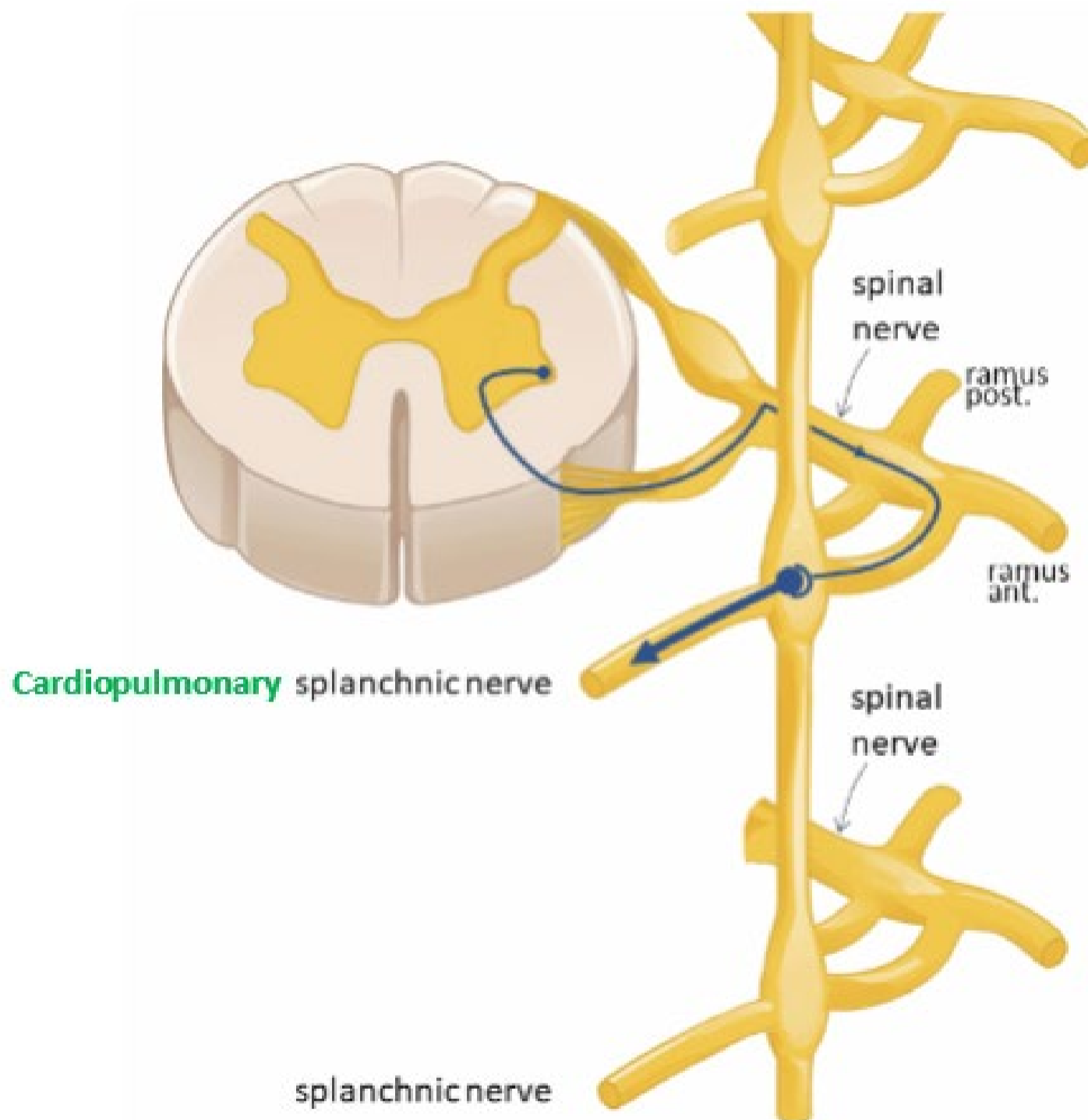
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Sympathisch naar hart, long, oesophagus

- Snellere, krachtigere hartslag
- Verwijding luchtwegen

Sympathisch naar hart, long, oesophagus



Spinale zenuw

Ramus communicans albus

Paravertebraal (truncus sympathicus) *SYNAPS*

OMHOOG / ZELFDE NIVEAU / OMLAAG

Cardiopulmonale splanchnische zenuwen

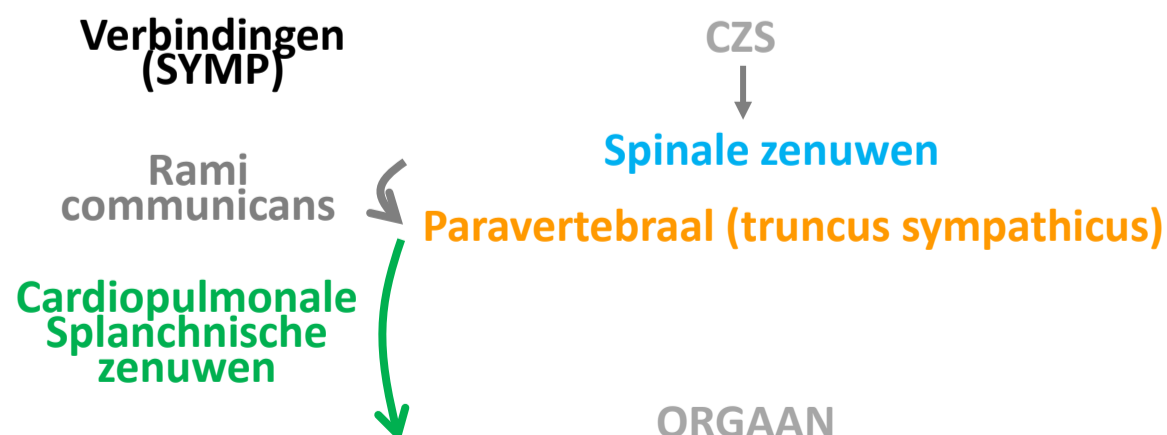
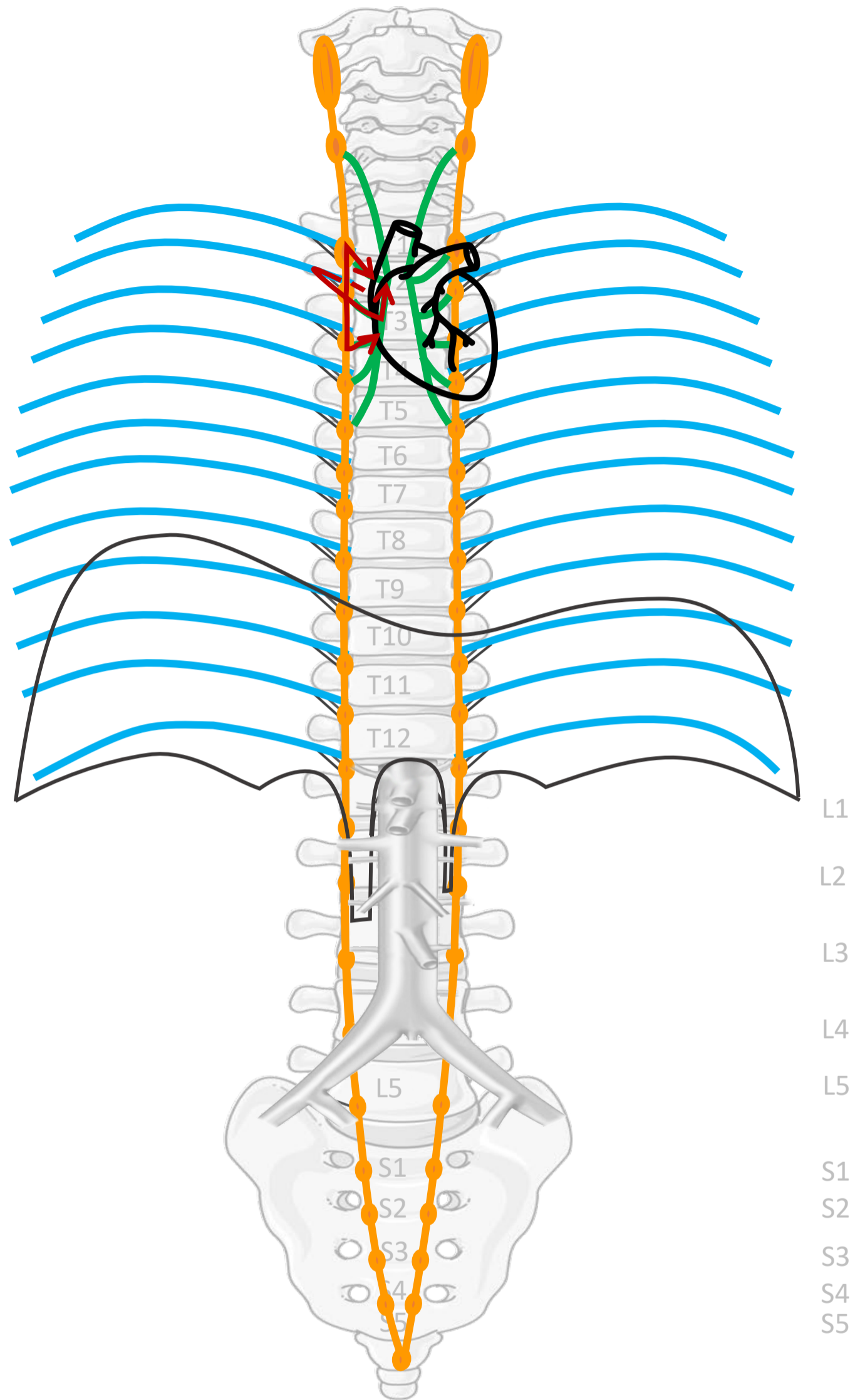
Hart, longen, oesophagus

Nn. intercostales (spinaal)

Rami communicans

Truncus sympathicus
(paravertebraal)

Cardiopulmonale
splanchnische zenuwen



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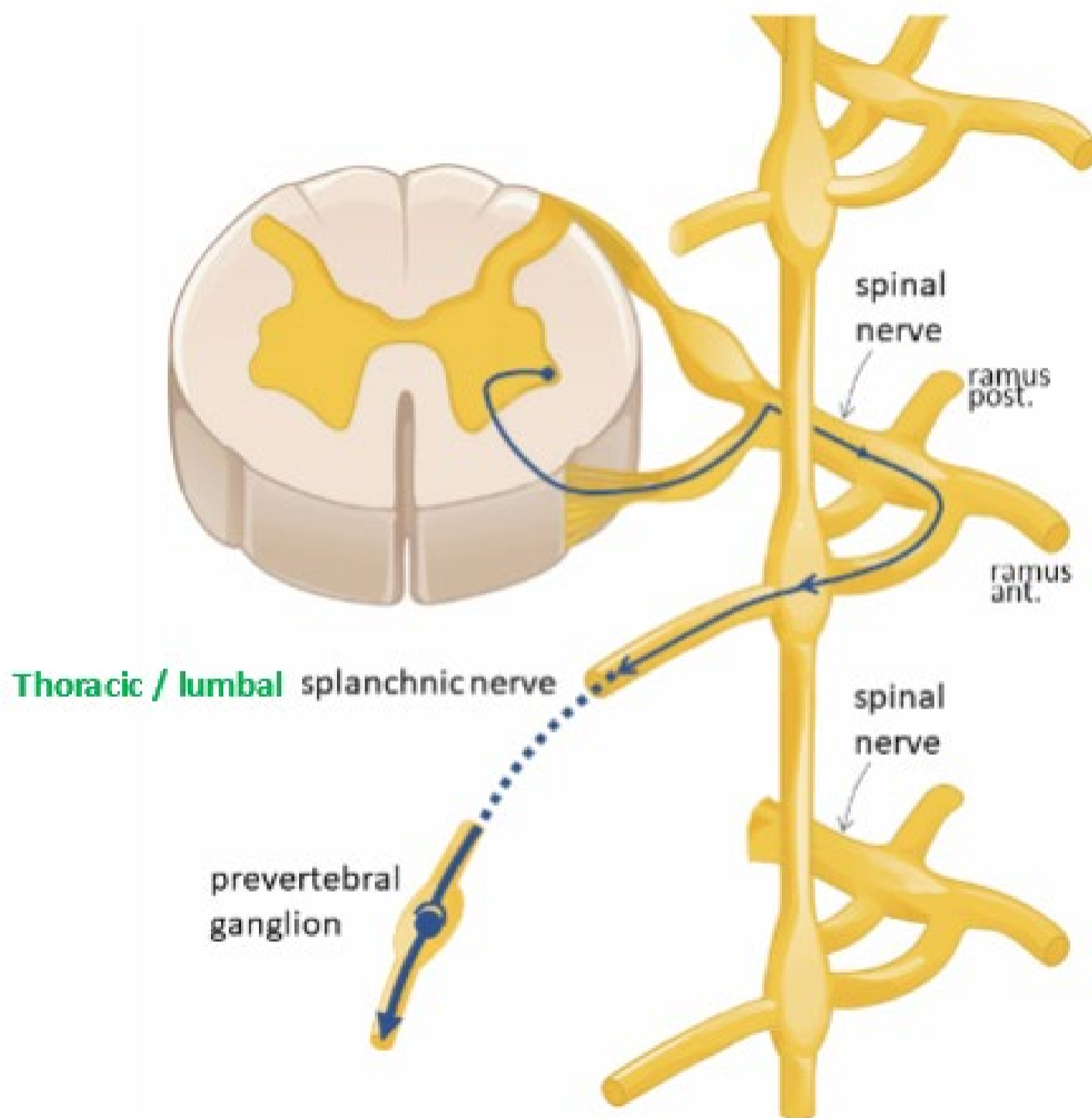
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Sympathisch naar buik- en bekkenorganen

- Remming peristaltiek
- Vasoconstrictie in tractus digestivus
- Omzetting glycogeen naar glucose
- Continentie - constrictie blaas- en anale- interne sphincters

Sympathisch naar buik- en bekkenorganen



Spinale zenuw

Ramus communicans albus

Paravertebraal (truncus sympathicus) *GÉÉN SYNAPS*

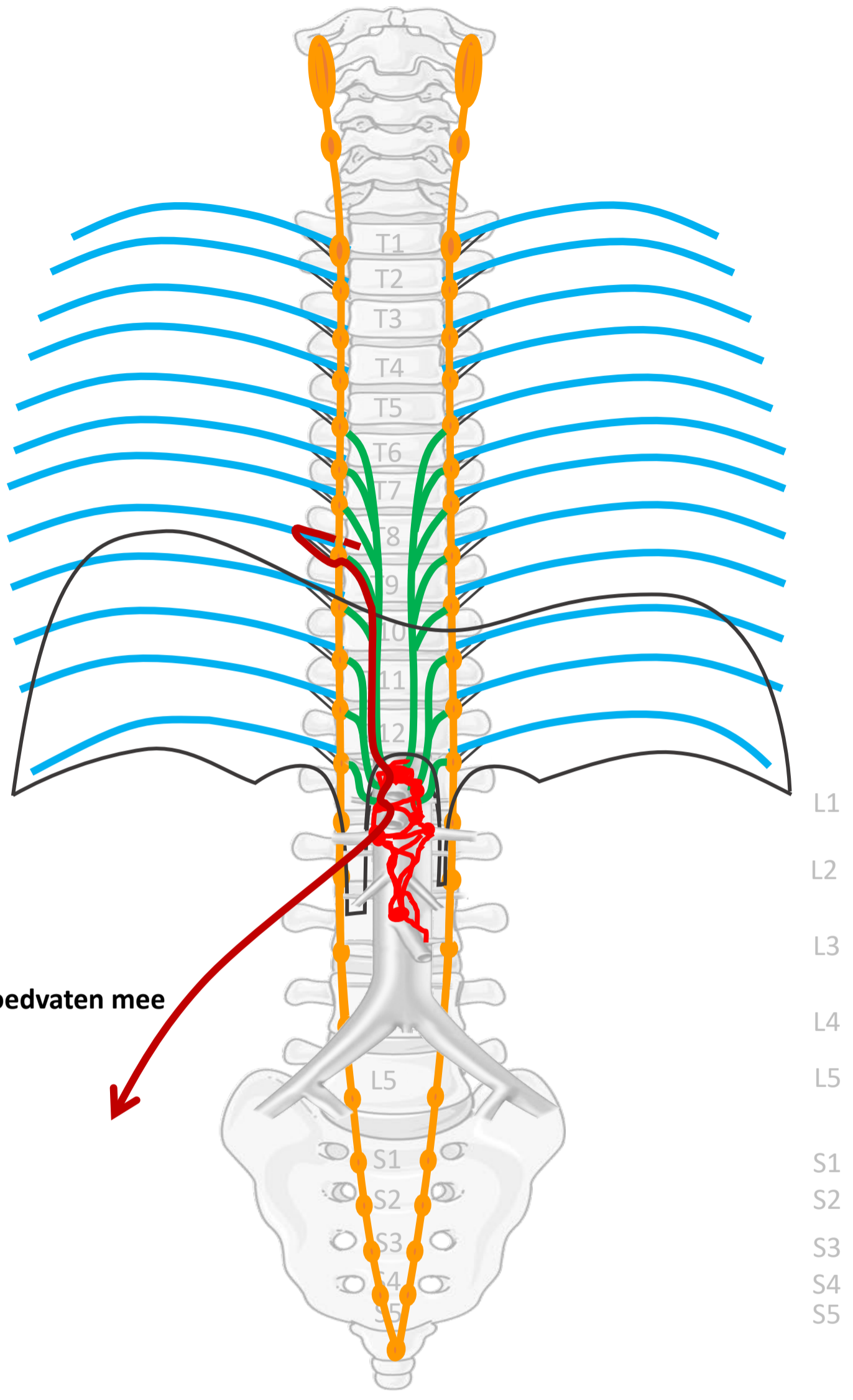
Thoracale /lumbale splanchnische zenuwen

Prevertebraal / preaortaal ganglion/ plexus *SYNAPS*

Met bloedvaten mee naar organen



Sympathisch naar buik organen (t/m ~ middendarm – colon transv.)



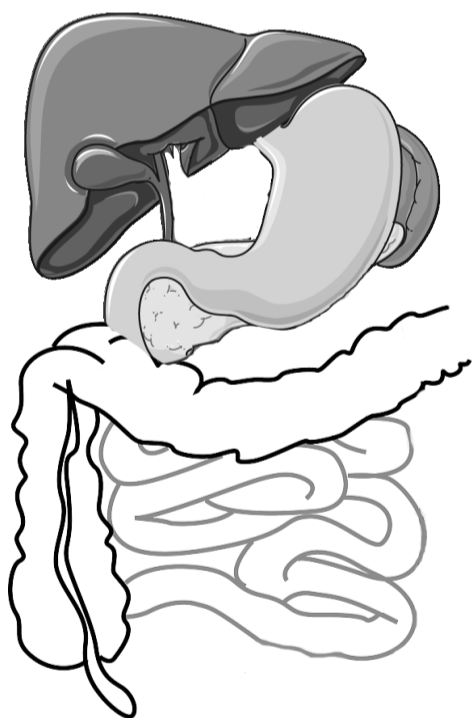
Nn. intercostales (spinaal)

Rami communicans

Truncus sympathicus (paravertebraal)

Thoracale splanchnische zenuwen: N. splanchnicus major, minor, imus

Prevertebrale / preaortale ganglia & plexi: ganglia & plexus coeliacus, ganglion & plexus mesent. sup, ganglia aorticorenalia, plexus intermesentericus, plexus mesent. inf.



Met bloedvaten mee

Verbindingen (SYMP)

Rami communicans

Thoracale splanchnische zenuwen

Met bloedvaten mee

CZS

Spinale zenuwen

Paravertebraal (truncus sympathicus)

Prevertebraal / preaortaal

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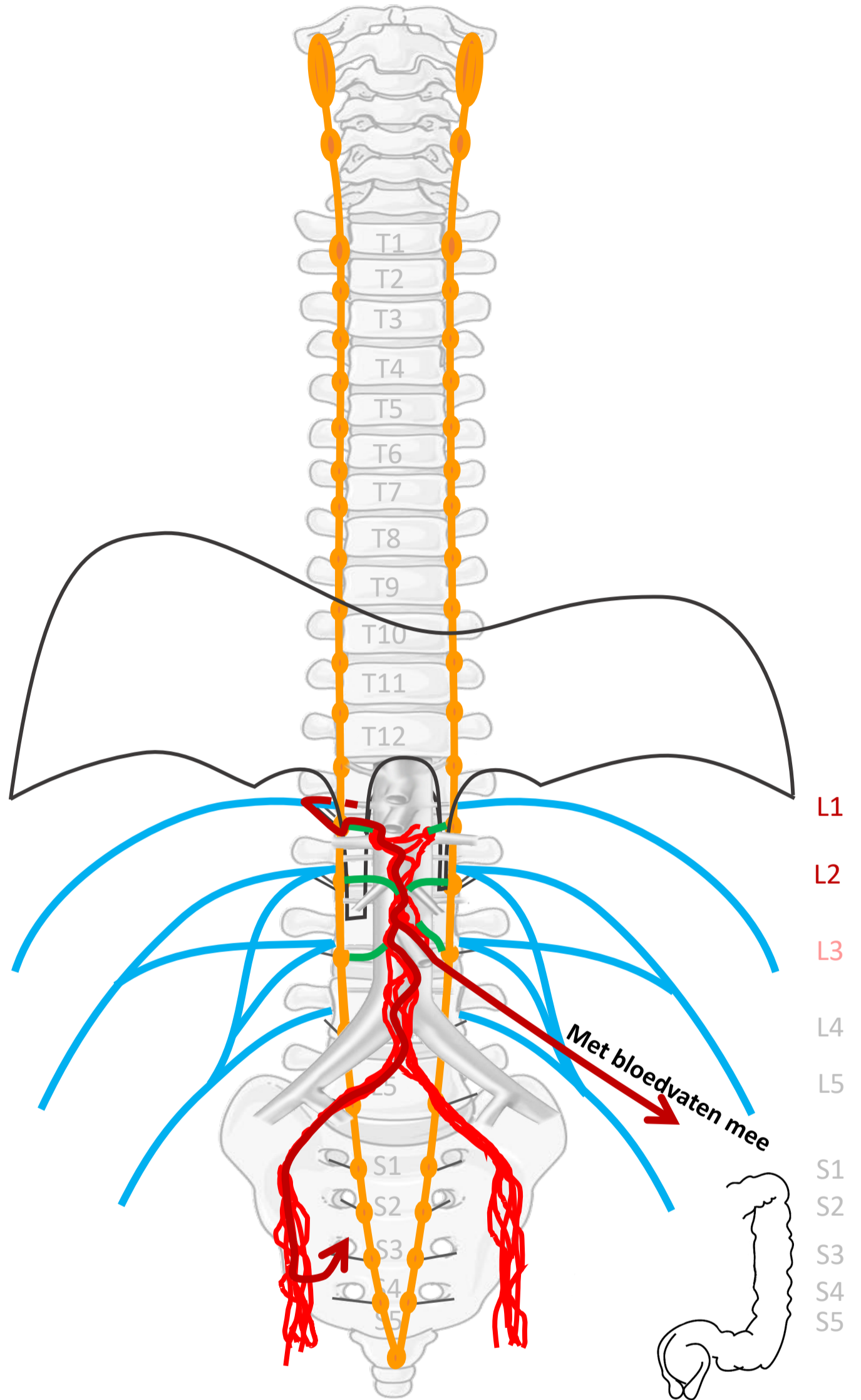
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"Servier - Drawing Overview digestive tract - no labels" by Servier Medical Art, license: CC BY



Sympathisch naar einddarm (colon desc./sigmoid/rectum) en bekkenorganen



Plexus lumbalis, achterste buikwandzenuwen (spinaal)

Rami communicans

Truncus sympathicus (paravertebraal)

Lumbale splanchnische zenuwen

Prevertebrale / preaortale ganglia & plexi:
 plexus intermesentericus,
 ganglia & plexus mesent. inf.,
 plexus hypogastricus sup.,
 n. hypogastricus,
 plexus hypogastricus inf.

Met bloedvaten mee

Verbindingen (SYMP)

CZS

Spinale zenuwen

Rami communicans

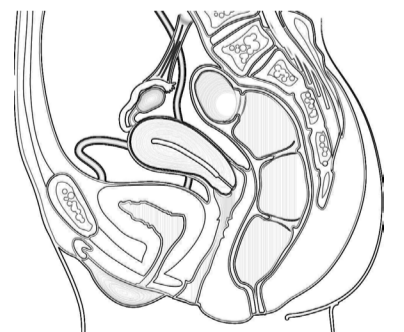
Paravertebraal (truncus sympathicus)

Lumbale splanchnische zenuwen

Prevertebraal / preaortaal

Met bloedvaten mee of via plexus hypogastr inf.

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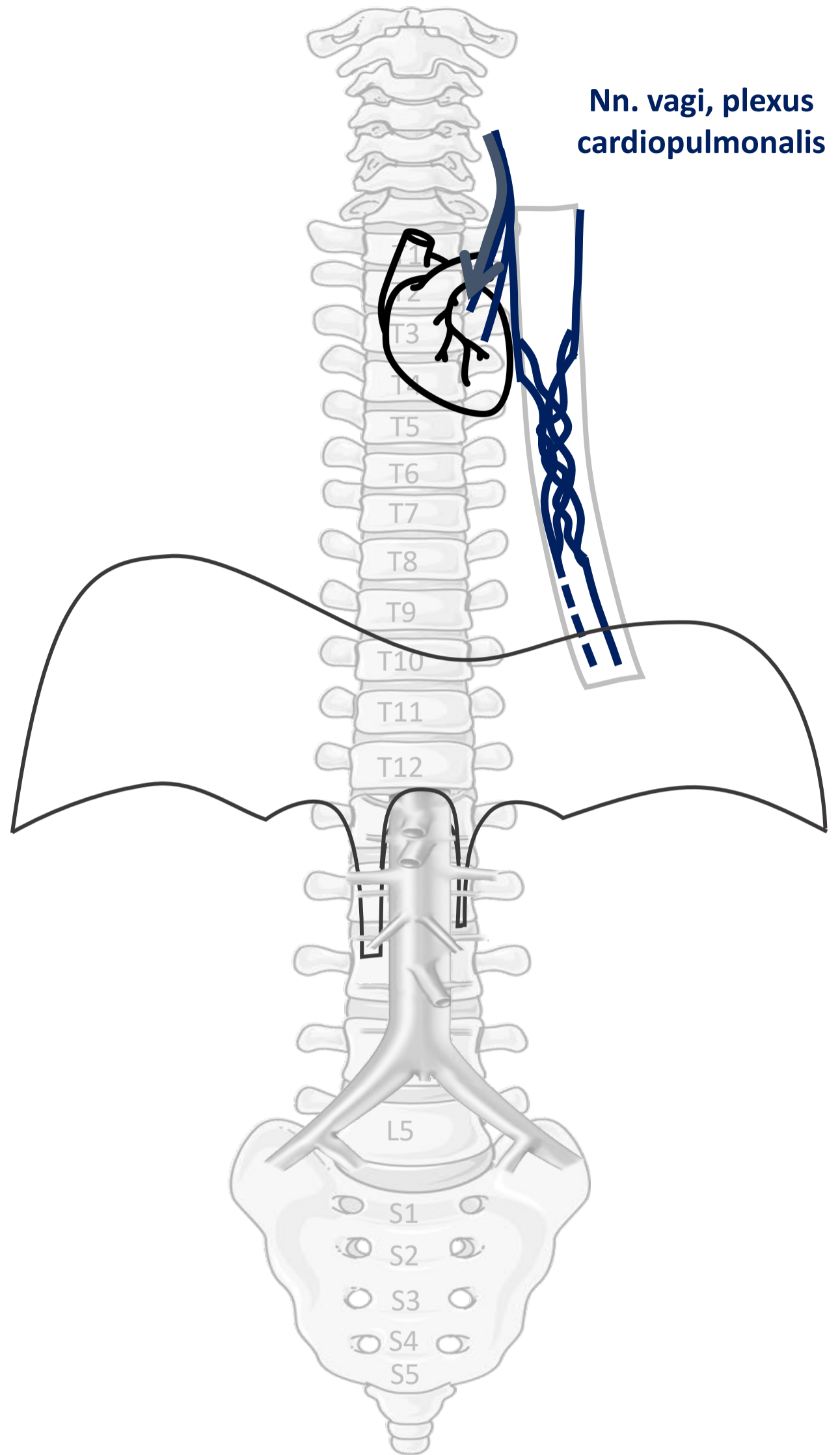
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"Slagter - Drawing Female pelvis in sagittal section - no labels" by Ron Slagter, license: CC BY-NC-SA



Parasympathisch naar hart, long, oesophagus

- Vertraging, minder krachtige hartslag
- Vernauwing luchtwegen
- Toename bronchus-secretie



CZS



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PARASYMP

N. vagus



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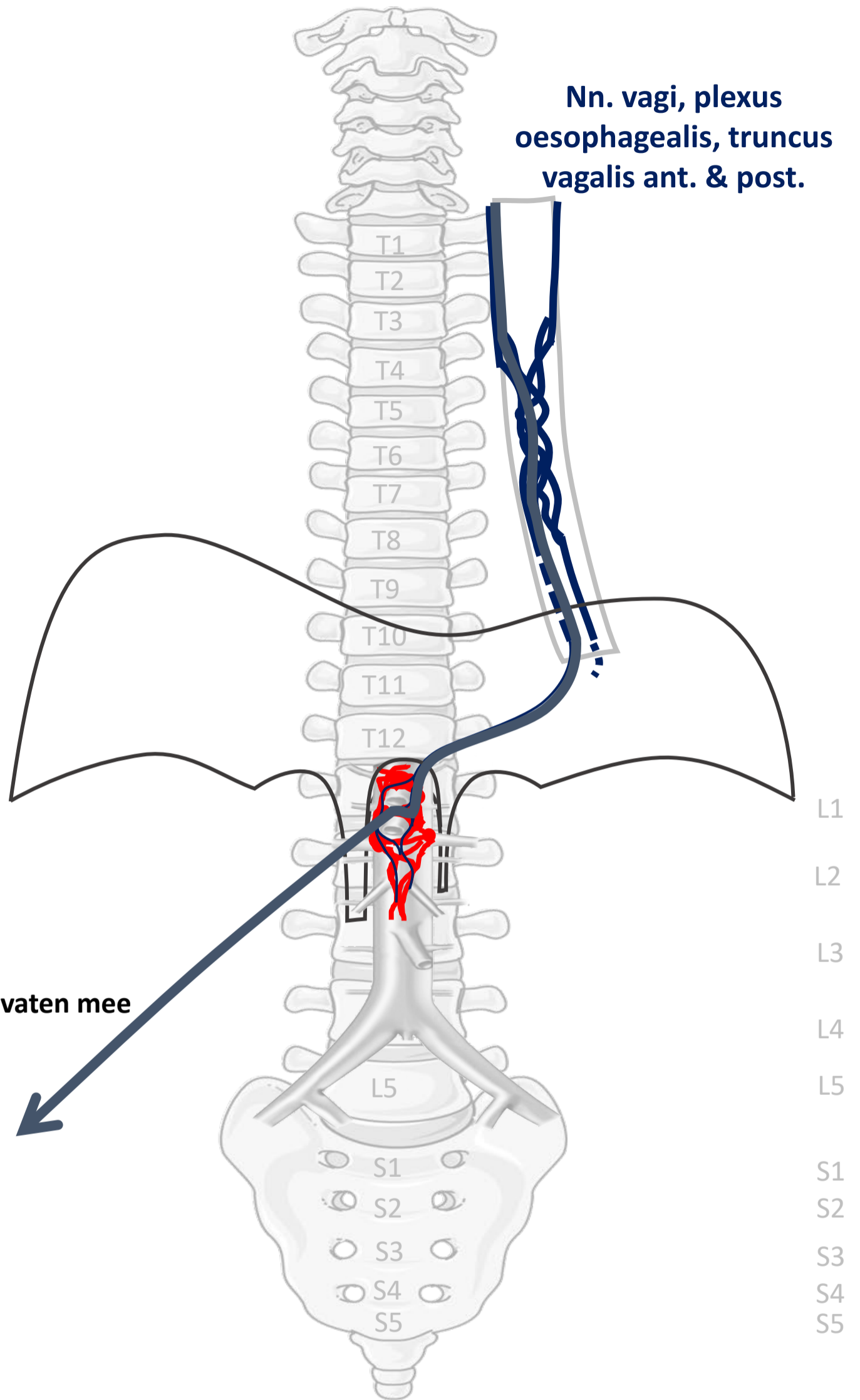
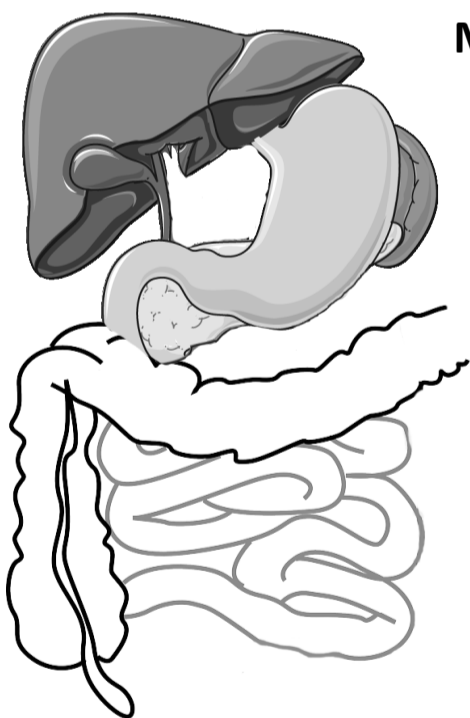
Parasympathisch naar buikorganen

(t/m middendarm – colon transversum)

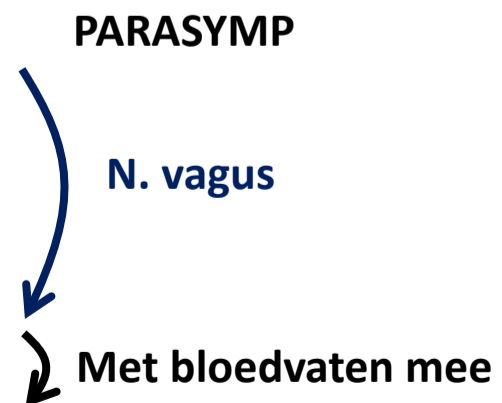
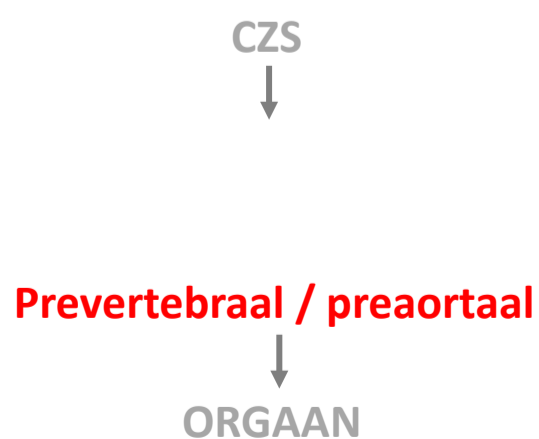
- Stimulering peristaltiek
- Stimulering secretie spijsverteringssappen
- Omzetting glucose naar glycogeen

Prevertebraal / preaortaal :
 plexus coeliacus,
 plexus mesent. sup,
 plexus intermesentericus,
 plexus mesent. inf.

Met bloedvaten mee



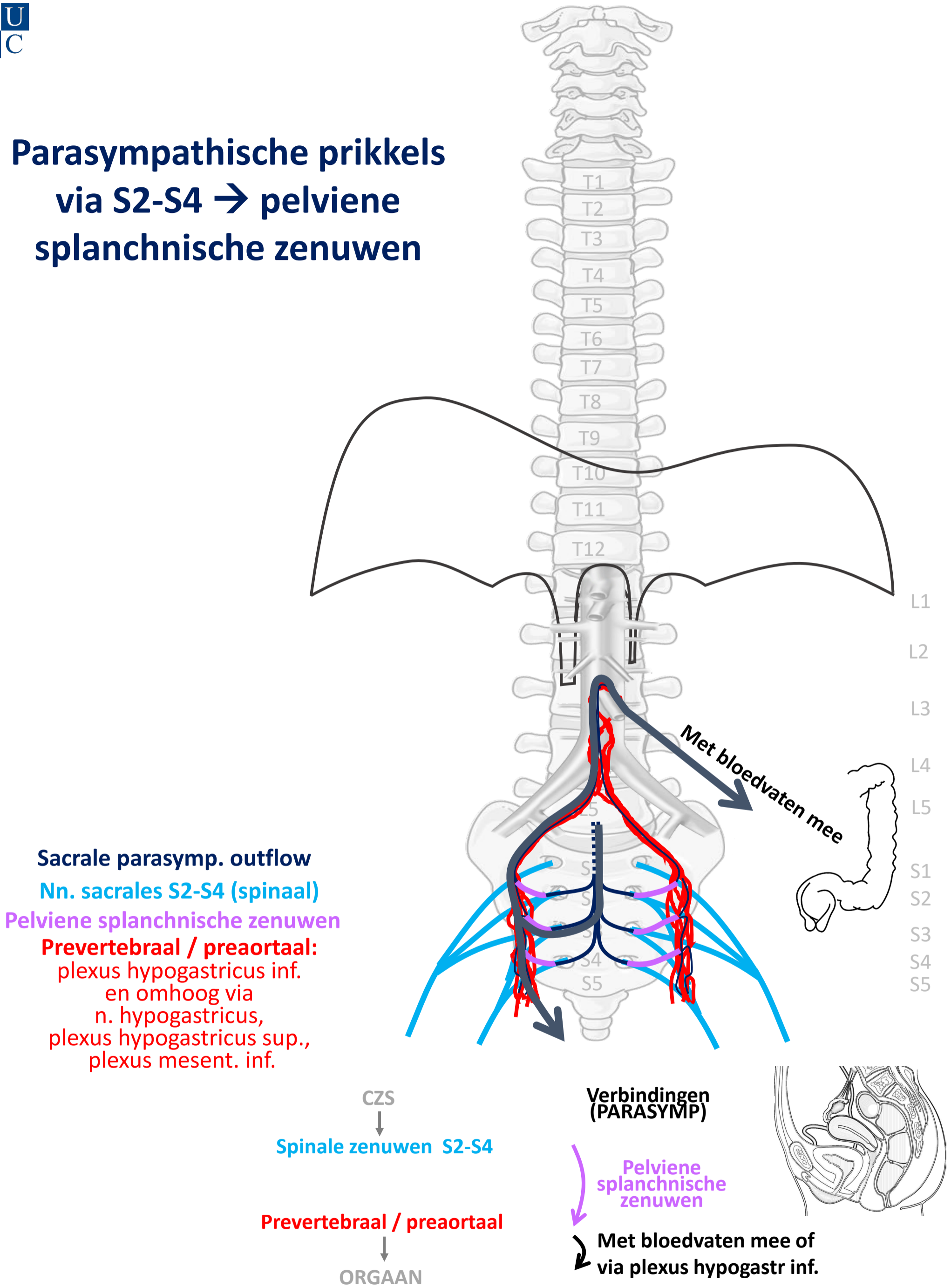
Nn. vagi, plexus oesophagealis, truncus vagalis ant. & post.



Parasympathisch naar einddarm (colon desc/sigmoid/rectum) en bekkenorganen

- Stimulering peristaltiek
- Defaecatie, mictie
- Erectie genitalia

Parasympathische prikkels via S2-S4 → pelviene splanchnische zenuwen



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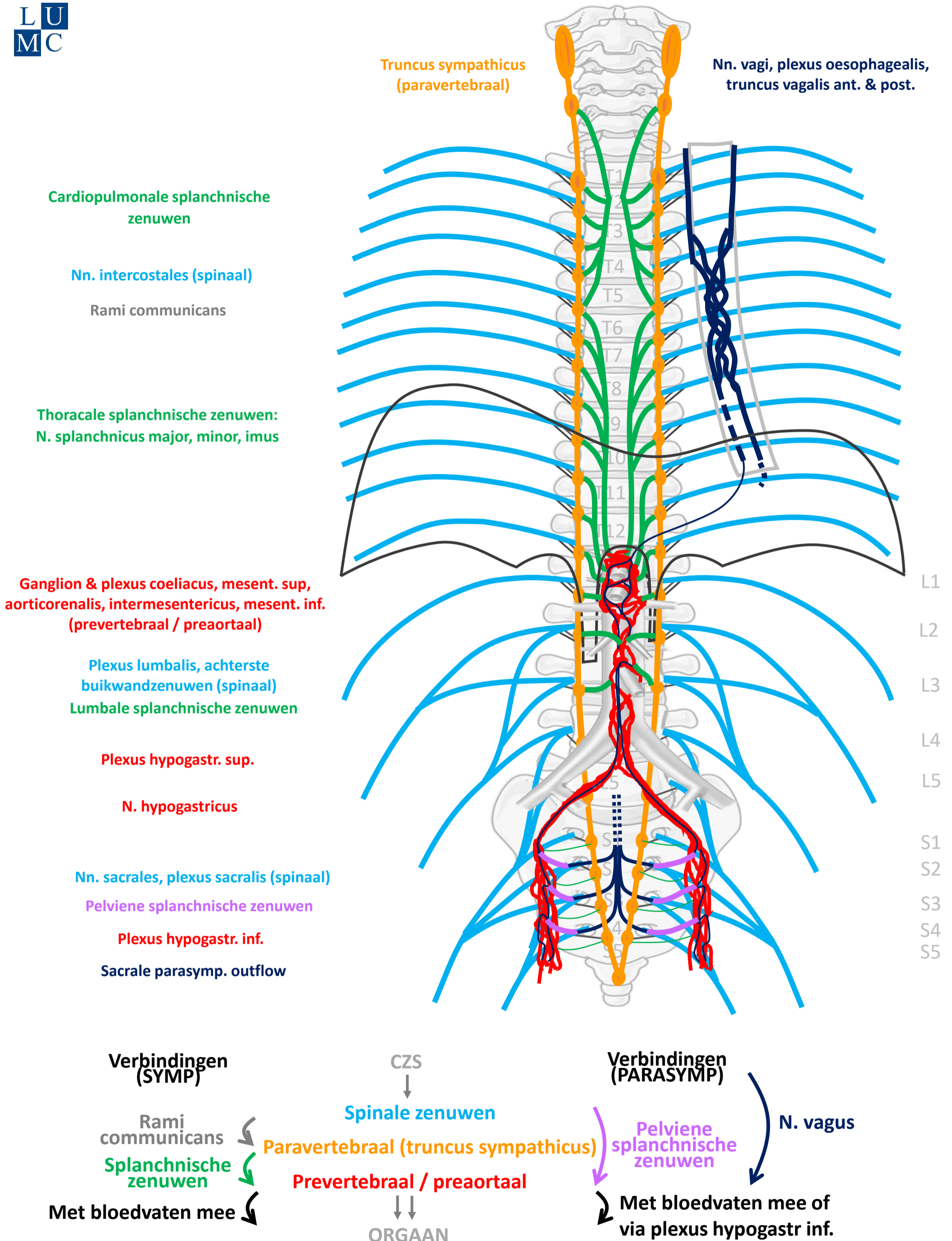
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Compleet schema



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