

Delayed Speech

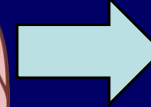
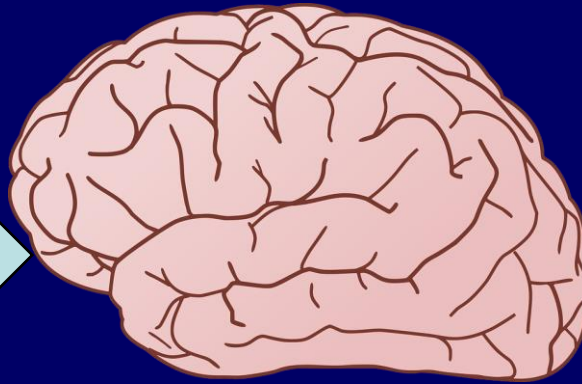
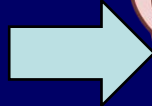
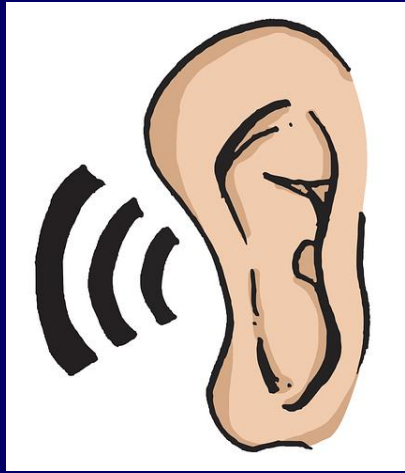
Pat Rojmahamongkol, MD
Siriraj Hospital

Language development

- Expressive language = แปลงเสียงพูด

Language development

- Expressive language = เปล่งเสียงพูด
- Receptive language = เข้าใจคำศัพท์



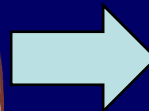
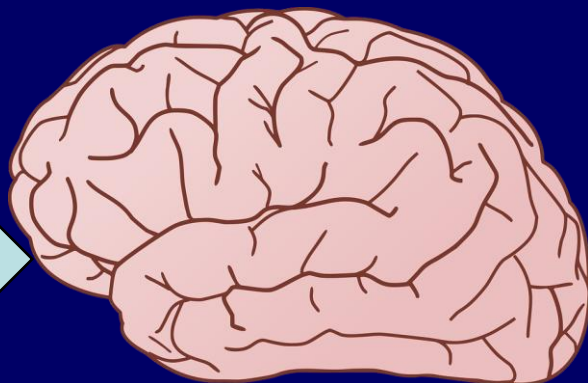
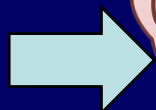
ได้ยินเสียง

ประมวลผล

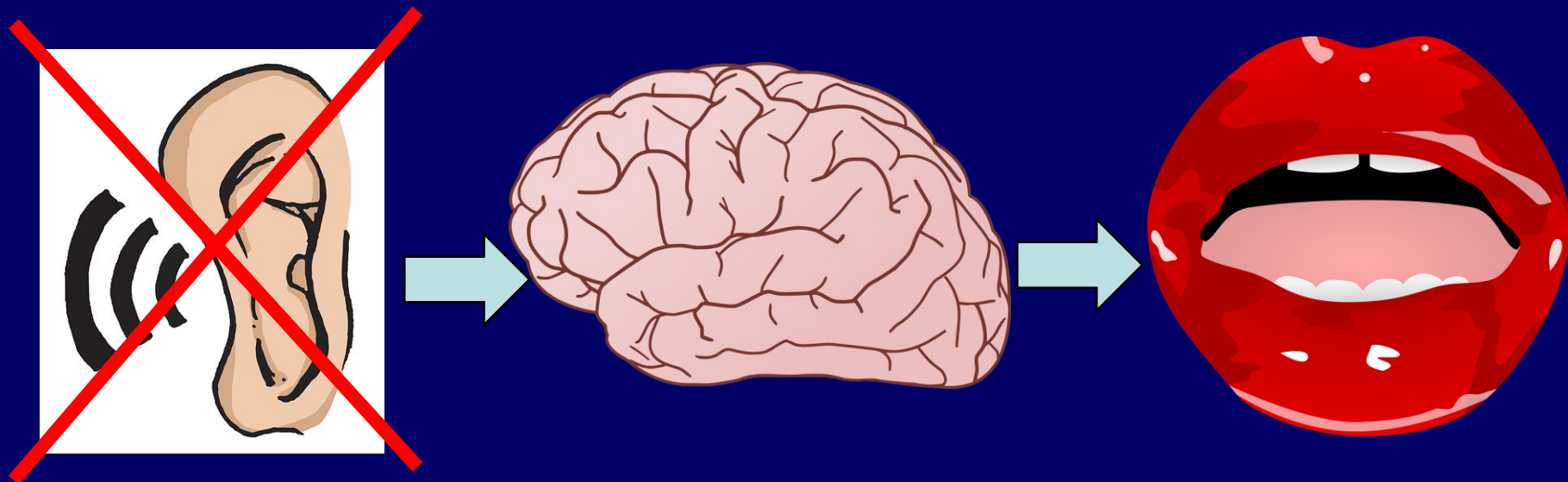
พูดตอบ



ไม่ได้ยิน



พูดซ้ำ



Hearing impairment

พูดซ้ำ

Hearing impairment

- Very good eye contact
- Use excessive gestural communication
- Not respond to voice

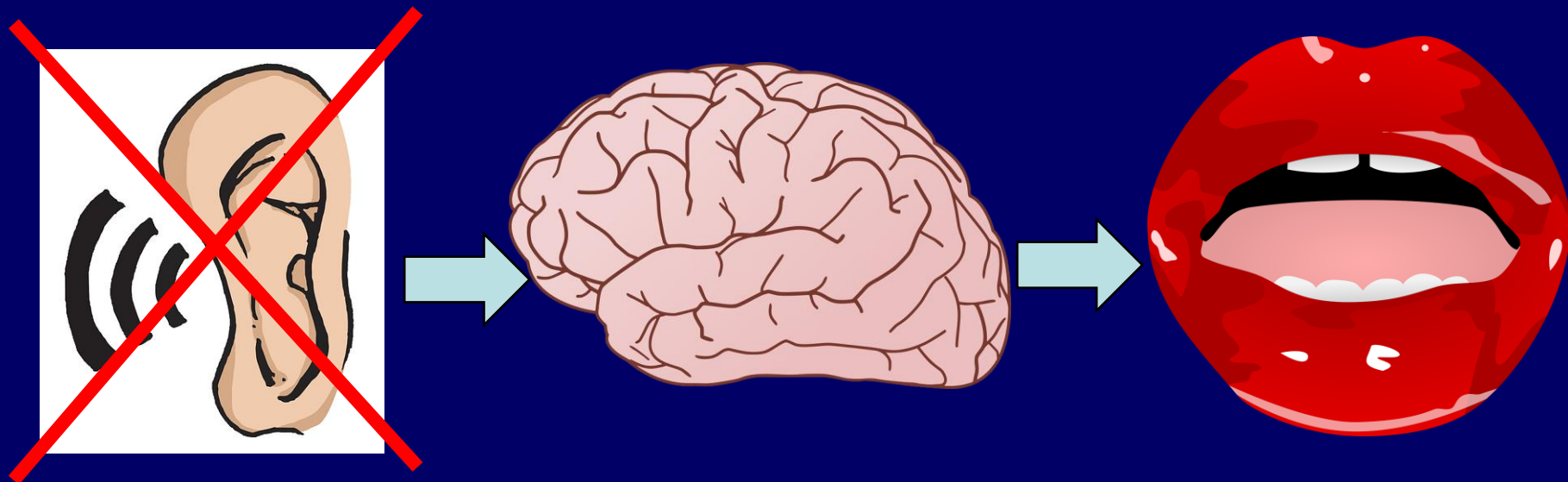
(Psarommatis IM, 2001)

Hearing impairment

- Mild to moderate HL, unilateral HL
 - No “da”, “ma”, “ga” or “dadada”, “mamama”, “gagaga”
 - Dysarticulation
 - Loud speaker
 - Delayed speech

(McLaughlin, 2011)

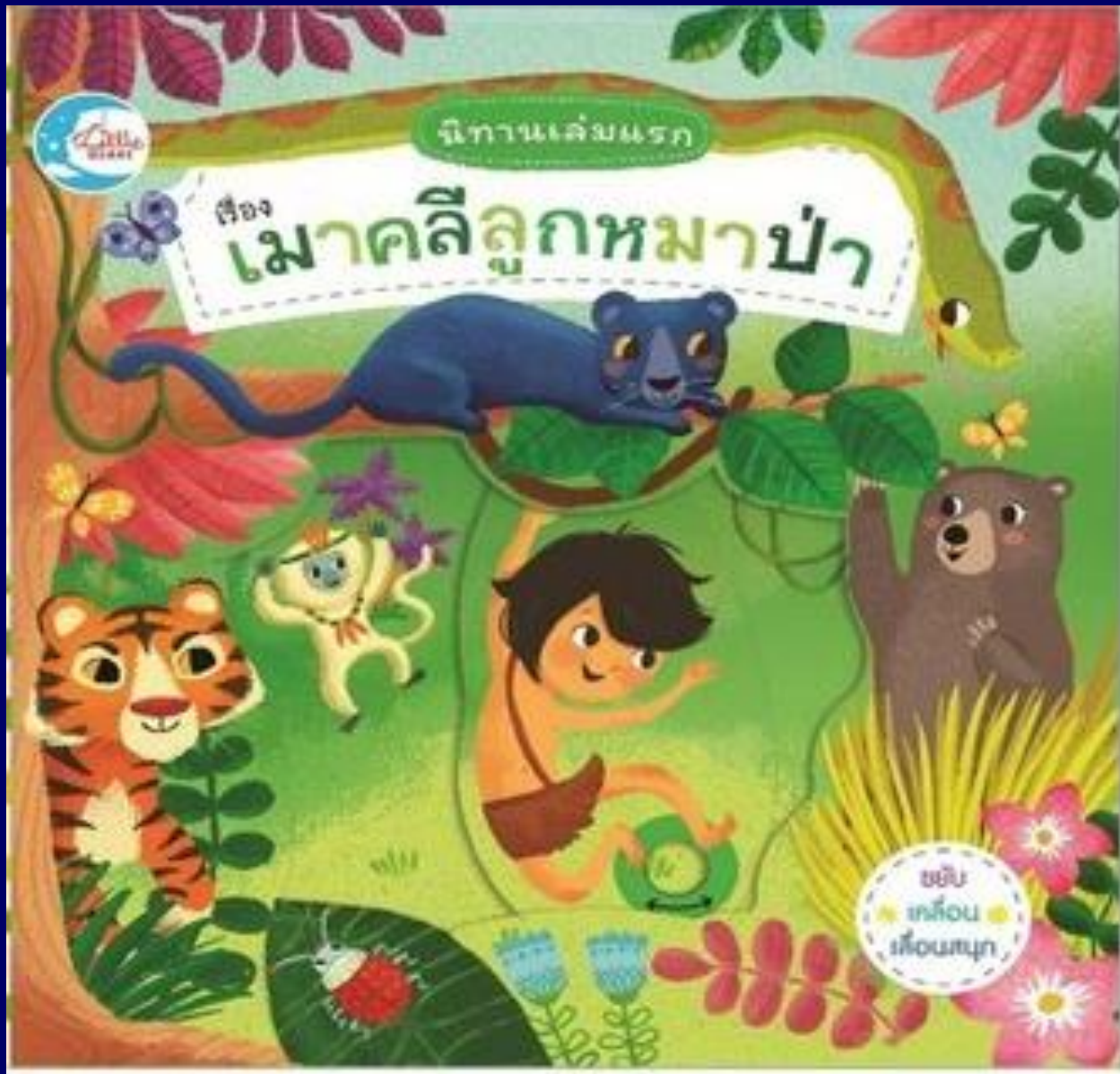
(Wills LM, Wills, KE, 2005)



Hearing impairment

Lack of stimulation

พูดซ้ำ



<https://www.central.co.th/th/b2s-mkp0875572>



TV viewing

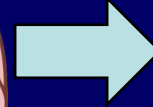
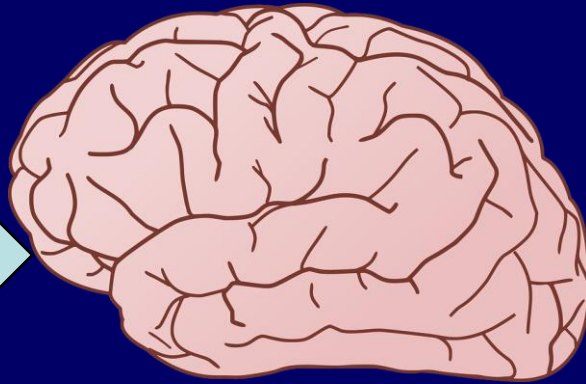
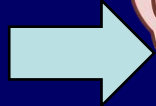
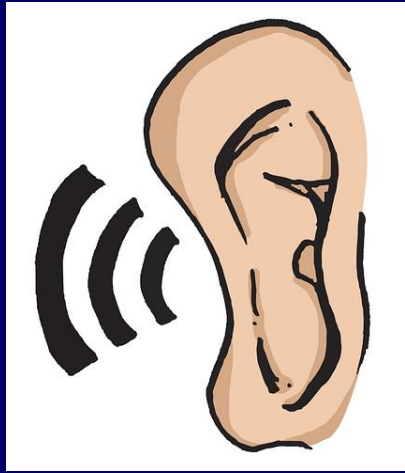
- Children with language delay usually started **earlier** and spent **more time watching TV** than ones without language delay

(Cholchaiya W, Pruksananonda C, 2008)

TV viewing

- **98%** of **6-month** old infant watched TV
- Amount of viewing time increased by age
- **No association** between viewing time and delayed speech

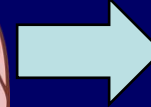
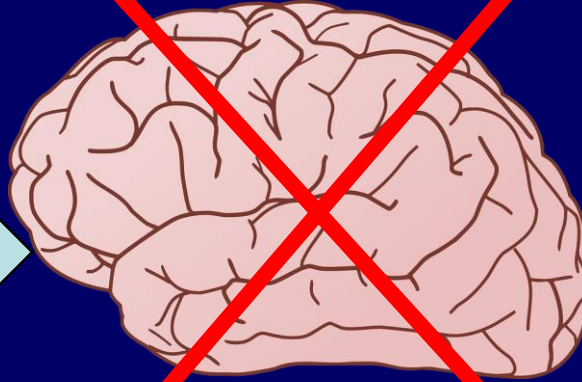
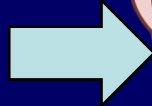
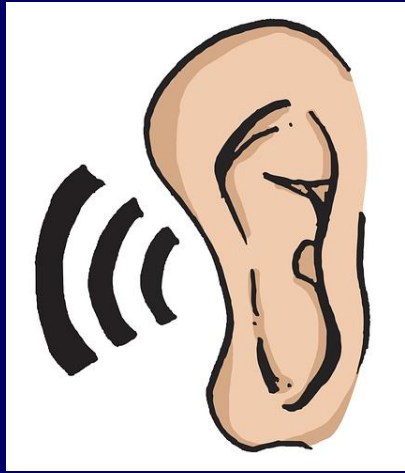
(Ruangdaraganon et al, 2009)



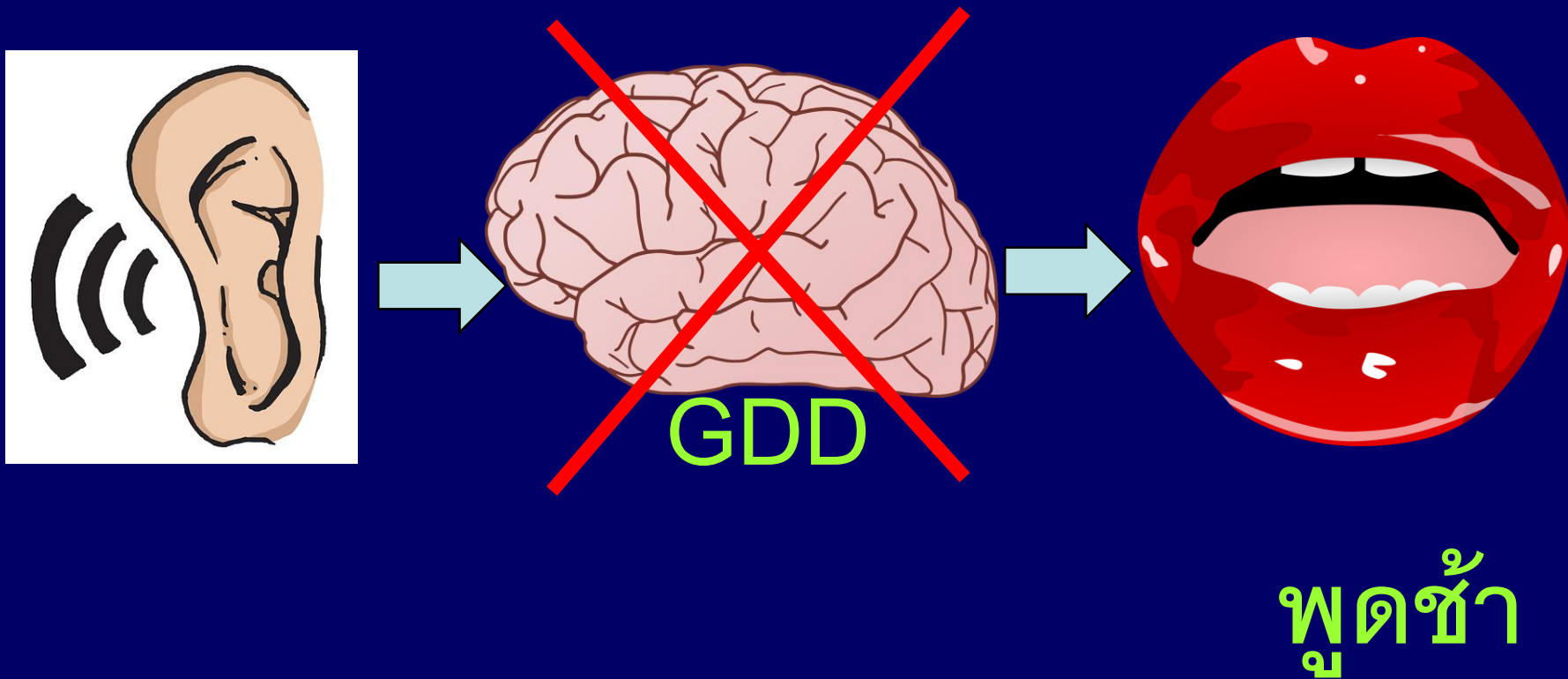
ได้ยินเสียง

ประมวลผล

พูดตอบ



ได้ยินเสียง ประมวลผลผิด พูดซ้ำ



GDD = Global developmental delay

Global developmental delay

- Delay more than 2 milestones
 - Gross/ fine motor
 - **Language**
 - Cognitive
 - Personal-social
 - Activities of daily living

(DSM-5)

Common causes of GDD

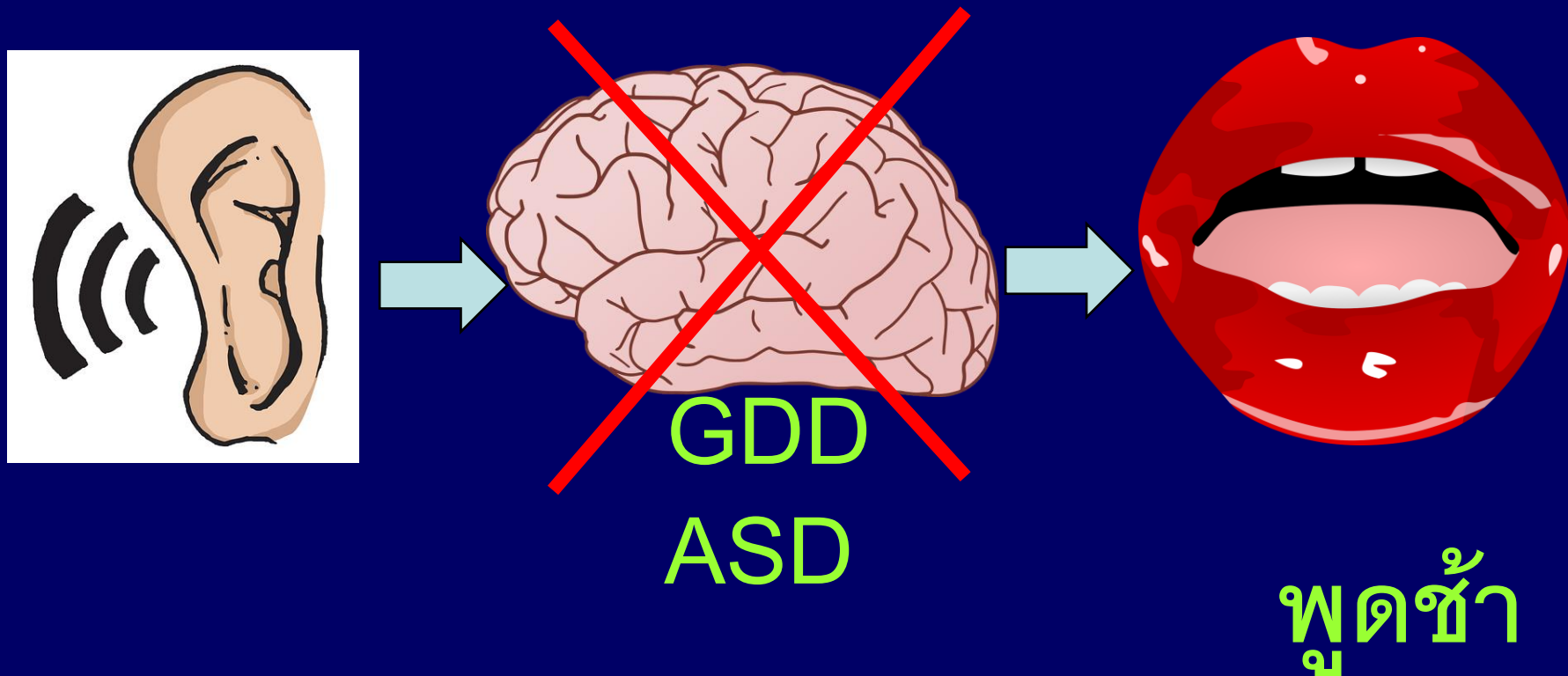
- **Prenatal causes**
 - Genetic diseases
 - Congenital anomaly
 - Prenatal infection
 - Teratogen
- **Perinatal causes:** preterm, birth asphyxia
- **Postnatal causes:** trauma, infection
- **Others:** severe understimulation

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Common causes of GDD

- Prenatal causes
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 - Teratogen
- Perinatal causes: preterm, birth asphyxia
- Postnatal causes: trauma, infection
- Others: severe understimulation, **unknown**



GDD = Global developmental delay

ASD = Autism spectrum disorder

Autism spectrum disorder

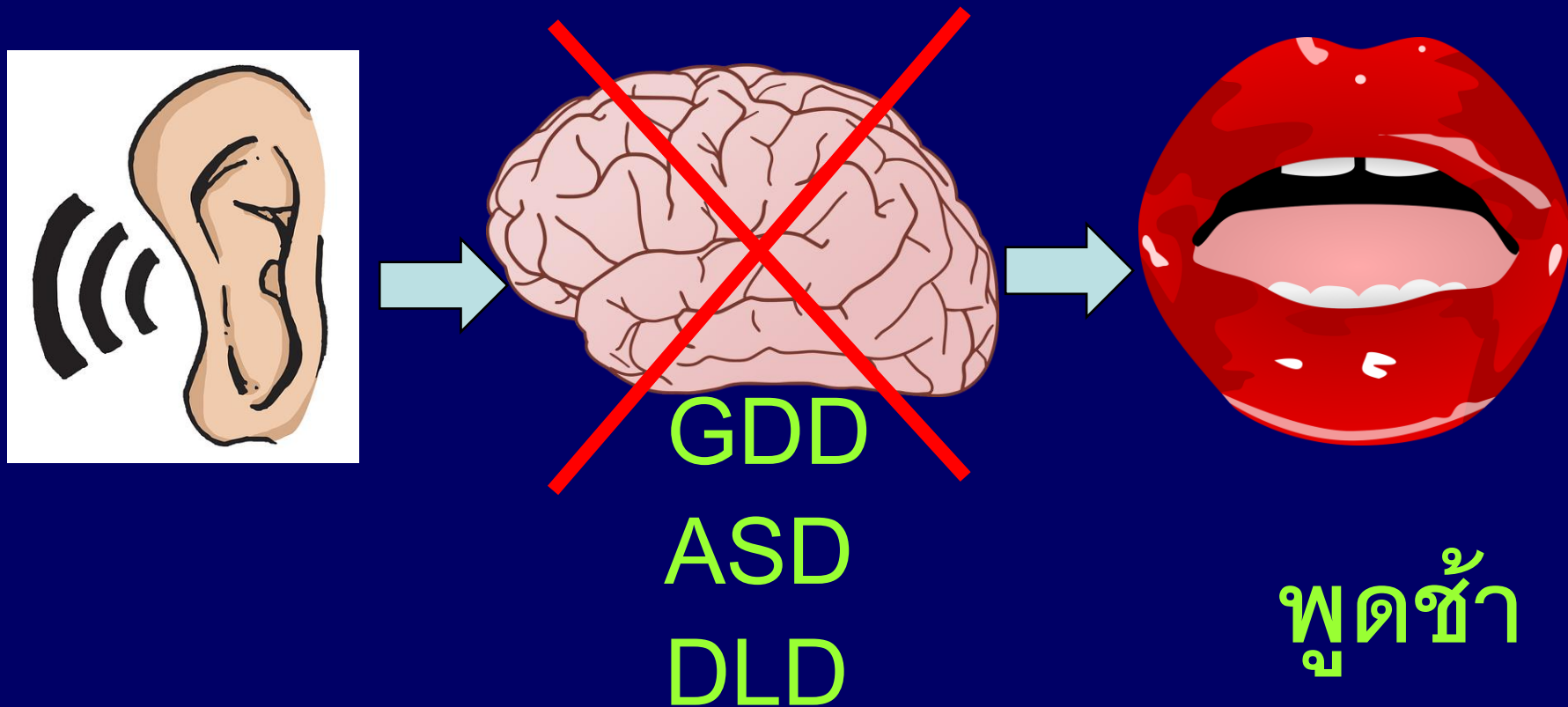
- Impair social communication and social interaction
- Restricted, repetitive behavior or interest

(DSM-5)

Social interaction

- How to assess?





GDD = Global developmental delay

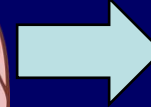
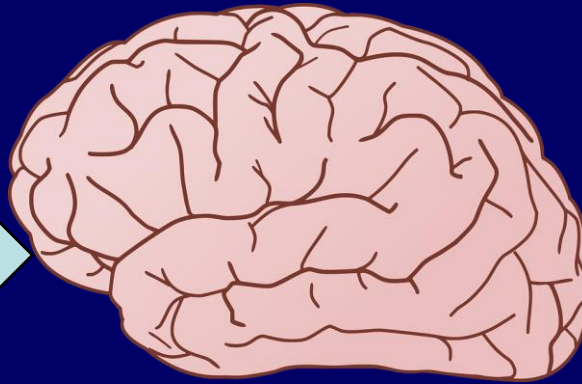
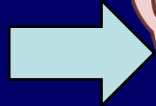
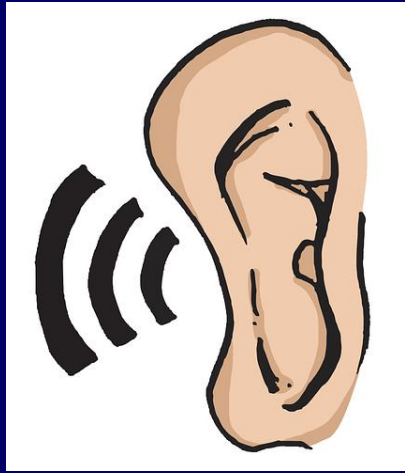
ASD = Autism spectrum disorder

DLD = Developmental language disorder

Developmental language disorder (DLD)

- Delayed language milestone
- **Normal** other developmental milestones
- **Normal** social interaction
- R/O other causes of language delay
- Delayed **receptive** and **expressive** language
- Risk for reading difficulty

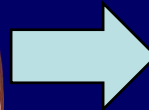
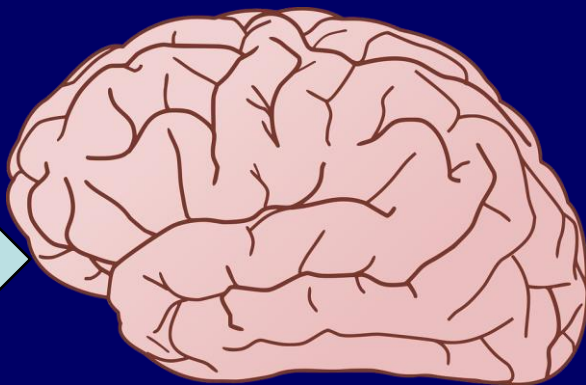
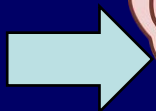
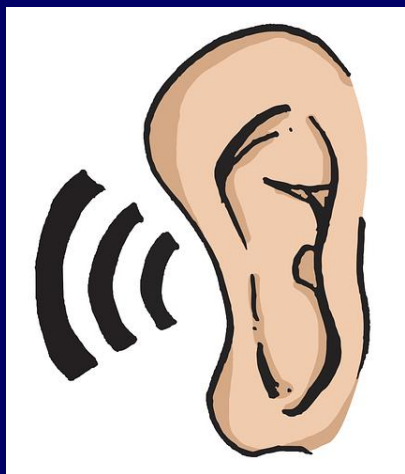
(Clegg J, et al, 2005)



ได้ยินเสียง

ประมวลผล

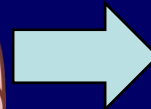
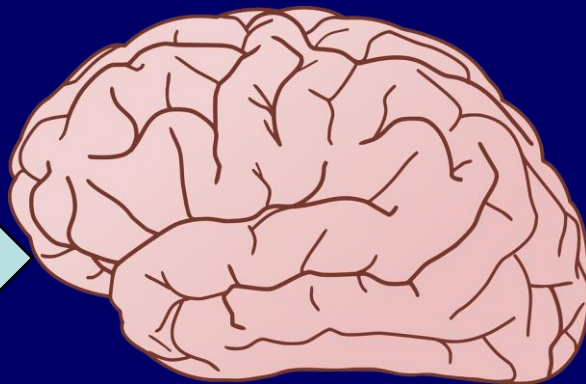
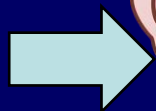
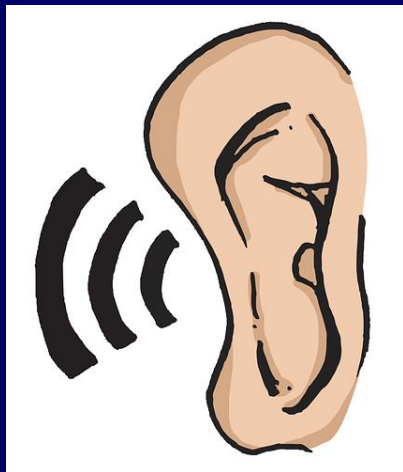
พูดตอบ



ได้ยินเสียง

ประมวลผล

พูดซ้ำ



ปากหนักร
(IEL)

IEL = Isolated expressive language disorder

Isolated expressive language disorder (IEL)

- Delayed **expressive** language
- **Normal** receptive ability
- **Normal** other developmental milestones
- **Normal** social interaction

Recommendations for parents





Watching media



< 18 mo

18-24 mo

2-5 yrs

$\leq 2 \text{ h / D}$

$\leq 1 \text{ h / D}$

Minimal media

No media

WHO. JPAH 2020;17(1):96-100

Watching media



< 18 mo

High quality
educational program

18-24 mo



2-5 yrs

AAP. Pediatrics 2015;138(5):e20162591

Watching media



< 18 mo

High quality
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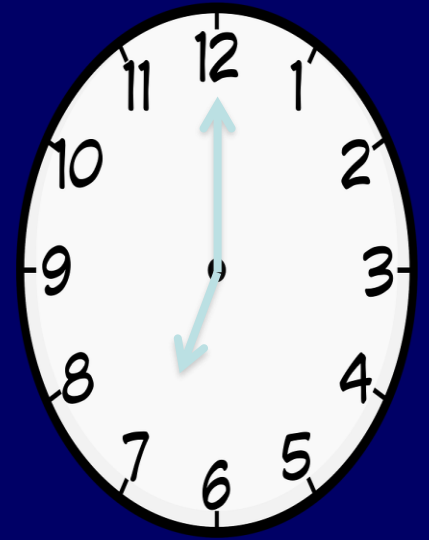


AAP. Pediatrics 2015;138(5):e20162591

No screens during meals



AAP. Pediatrics 2015;138(5):e20162591



AAP. Pediatrics 2015;138(5):e20162591