



Transforming Lives:
Early Speech and Language
Development in Children with Cleft
Lip/Palate

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Welcome and Introductions



Stephanie Paul
Executive Director
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Presentation



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Financial Disclosures

- We are both full-time salaried employees of our respective hospitals.



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Learning Objectives

- Review milestones related to early speech and language development
- Discuss how a cleft palate may impact speech and language development
- Provide families with strategies to encourage speech and language development



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Speech and Language Development Before Palate Repair

By: Meg Lico, MS, CCC-SLP



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Your Child's First Year

Focus is on the following:

- Interaction & Attachment (Bonding, Skin to Skin Contact, Play Skills)
- Airway/ENT
- Hearing and Audiology
 - Some children with cleft palate do not pass the Universal Newborn Hearing Screening
 - ENT, Audiology follow up crucial in first year of life
 - Child may need ear tubes/BMTs due to presence of Otitis Media with Effusion
 - Study: 97% of ears in a study of 50 children with cleft palate had OME (Dhillon, 1998)



Dhillon, RS. The middle ear in cleft palate children pre and post palatal closure. J R Soc Med. 1988 Dec;81(12):710-3. doi: 10.1177/014107688808101209. PMID: 3065499. PMCID: PMC1291883.



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Your Child's First Year (cont'd)

- Feeding
 - Speech-Language Pathologists, Nurse Practitioners, Registered Dietitians, Occupational Therapists, GI physicians can assist with these goals
 - Weight gain important in preparation for upcoming surgeries
- Nasoalveolar Molding (NAM)
- Preparing for surgery!



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Your Child's First Year: Language

0-3 Months of Age

- Cooing and Gooing (Vowels)
- Laughing, Smiling, Gurgling sounds
- Turns head to look for parent
- Turns head towards sound
- Eye gaze/visual attention



4-6 Months of Age

- Continued vocalizations with vowel sounds, may begin to see some signs of reduplicated babbling
- Begins crying in different ways to have different needs met (hunger, pain, fatigue)
- Responds to name



Source: Centers for Disease Control and Prevention



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Your Child's First Year: Language (cont'd)

6-12 Months: Babbling and First Words

- Babbling typically occurs between 6-9 months of age
- Consonant-Vowel Strings known as canonical babbling

Reduplicated Babbling

“mamama”



Variegated Babbling

“mamalana”

- First meaningful word around *approximately* 12 months of age
- As children begin to produce words around their first birthday, we do not expect these words to sound perfect



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Resources: CDC Developmental Milestones Tracker

CDC Centers for Disease Control and Prevention
CDC 24/7. Saving Lives. Protecting People™

Learn the Signs. Act Early.

Learn the Signs Home

CDC's Developmental Milestones

Skills such as taking a first step, smiling for the first time, and waving "bye bye" are called developmental milestones. Children reach milestones in how they play, learn, speak, act, and move (crawling, walking, etc.).

Click on the age of your child to see the milestones:

- 2 months
- 4 months
- 6 months
- 9 months
- 1 year
- 15 months
- 18 months
- 2 years

Download CDC's free Milestone Tracker App

Help your child grow and thrive with CDC's free Milestone Tracker app.

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Resources: American Speech & Hearing Association

ASHA American Speech-Language-Hearing Association

ASHA STORE MEMBER CENTER MY ACCOUNT CONTACT US LOGIN

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COVID-19 UPDATES: Find news and resources for audiologists, speech-language pathologists, and the public.
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How Does Your Child Hear and Talk?

[en Español]

Your child starts communicating with you long before he says his first word. Learn more about what your child should do in his first 5 years and how you can help.

Speech, language, or hearing problems can lead to trouble making friends and doing well in school. Give your child success—get help early.

Find your child's age below and learn about her speech, language, and hearing development.

- Birth to One Year
- One to Two Years
- Two to Three Years

ASHA / Public / Speech / Development /

ASHA ProFind
Communication help near you.

Find a Professional

In This Section

- HEARING & BALANCE
- SPEECH, LANGUAGE & SWALLOWING
- ABOUT HEALTH INSURANCE
- ADDING SPEECH & HEARING BENEFITS
- ADVOCACY & OUTREACH


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How Is Babbling Different For A Child With A Cleft Palate And/Or Lip?

- Sometimes babbling can be slightly delayed for children with cleft palate
 - In one study, 57% of babies with a cleft palate reached canonical babbling stage by 9 months of age, compared to 93% of babies without a cleft palate
 - More glottal sounds observed for babies who have a cleft palate
 - (Chapman, Hardin-Jones, Schulte, & Halter, 2001)
- Children with a cleft palate cannot physically make certain sounds with an open palate due to the inability to create oral pressure
 - This means that between 6 months and the time of your child's palate repair, we must capitalize on their strengths to encourage typical babbling patterns

Chapman KL, Hardin-Jones M, Schulte J, Halter KA. Vocal development of 9-month-old babies with cleft palate. *J Speech Lang Hear Res.* 2001 Dec;44(6):1268-83. doi: 10.1044/1092-4388(2001)099. PMID: 11776364.
 Scherer, N. J., Williams, A. L., & Proctor-Williams, K. (2006). Early and later vocalization skills in children with and without cleft palate. *International Journal of Pediatric Otorhinolaryngology*, 72(6), 827–840. <https://doi.org/10.1016/j.ijporl.2008.02.010>

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STRATEGIES FOR SPEECH & LANGUAGE FOR YOUR CHILD BEFORE CLEFT PALATE REPAIR
Meg Lico, M.S. CCC-SLP

By the time you receive this handout, your child has likely undergone his/her initial cleft lip repair. Congratulations! Now, as you await the cleft palate repair (usually scheduled for around one year of age and determined by your craniofacial team's plastic surgeon), we want to begin thinking about how to expand your child's language skills. Here are some strategies you can use to help your child continue to develop his/her speech and language during this time:

#1 Capitalize on Strengths

Encourage and reinforce babbling sounds that your baby can produce even with an open cleft.

According to the Centers for Disease Control and Prevention, typical babbling development usually begins between 6 and 9 months. Babbling includes a string of consonant and vowel productions that are merged together. This means the baby is experimenting with words or sounds in his/her mouth but they are not yet able to string together these words to form a meaningful word or utterance.

Since your child has an open cleft that is awaiting repair, he/she will not be able to produce certain sounds in the mouth at this time. These sounds could include P, B, T, D, K, G, S, Z, and others. We do not want to model these sounds prior to palate repair as it could lead the child to develop incorrect speech patterns that will be difficult to correct later on, or cause communicative frustration as they cannot produce the sound correctly.

So what can we do to help a child continue to develop his/her language?


Tip: Focus on the sounds we know your child can produce, even with an open cleft palate!
These sounds usually include:

Y W N H M NG L

Your child can also make a number of different vowel sounds to correspond with these consonants! Here are just a few examples of target babbling strings that you can model for your child during play until the palate is repaired:

Nanananana Yiyiyayeye
Mamamomomo Wawawawawowo

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#2: Functional Vocabulary

As your child begins progressing through a number of babbling strings using the above consonants, you can begin to model functional vocabulary with the same sounds. Functional vocabulary can be used in meaningful interactions and activities of daily living, such as during mealtimes or while playing. Here are some examples of words that include the above target sounds that you can model for your child:

Mommy/ Mama	Hi	Moo	More	Moon
Noon	Wow/ Woah	Yeah	No	Me
Ear	Eye	Nana	Neigh	Mine

Note: Remember that a child's first word is usually not produced until right around 12 months, so while these are great models, we do not expect children to say these words perfectly or consistently at this time!

#3: Communication, Communication, Communication!


Communicative interactions with your little one are extremely important. Do not be afraid of initiating language interactions with your child at this time. Use language during play as you would with any other child all while keeping in mind the above tips. Ask your Speech-Language Pathologist for some tips and tricks if you need ideas on how to encourage language and develop play skills at home.

1 If you consistently hear sounds that are being made at the throat (known as glottal stops) or air/sounds coming through the nose while playing/communicating with your baby, let your Speech-Language Pathologist know. We will want to redirect these productions to prevent speech and language errors for the future.

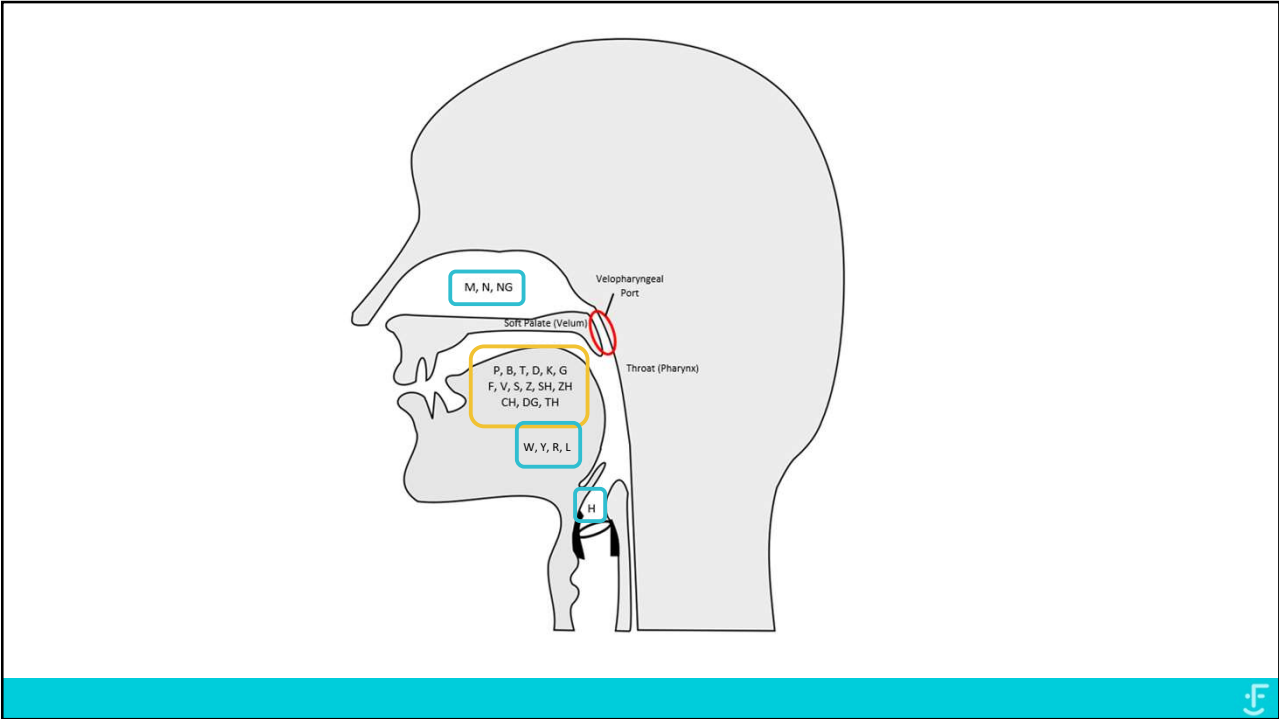
Questions or Concerns?

Speak with the Speech-Language Pathologist on your Craniofacial team about your concerns. There are many factors to consider at this time as your baby is continuing to develop and grow. They can help guide you through your baby's individual path to speech and language development as well as assist with referrals for speech therapy as indicated.

STRATEGIES FOR SPEECH & LANGUAGE FOR YOUR CHILD BEFORE CLEFT PALATE REPAIR
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Strategies To Encourage Language Development

- **+ 1 Routine**
 - Child: Bird!
 - Parent: Little Bird!
 - Use simple language
- **3:1 Rule:** 3 Statements for every 1 Question asked of your child
- **Verbal Routines**
 - 1, 2, 3! Or Ready, Set, Go!
 - Singing songs or functional words during daily tasks, such as hand washing
- **Narrate** your day, attach sounds to actions
- **Communicative Temptations**
 - Oooooo-pen! For desired toy contained in box
- **Repetition, repetition, repetition!**
- **Increased wait time**
- **Utilize toys** that help to elicit language development

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Speech and Language Development After Palate Repair

By: Lauren Beckett, MS, CCC-SLP



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After Palate Repair

- Recovery period following palate repair
 - Decreased babbling or use of sounds (approx. 2-6 weeks)
- Then more vocal play
 - Explore new oral anatomy and learn to create new sounds
- Begin to develop oral pressure sounds that require activation of palate muscles
- May continue to show preference for words with nasal sounds (/m, n/), or replace other sounds with “throat sounds”



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Your Child's Second Year: Language

12-18 Months of age:

- Emergence of more single words with jargon mixed in
 - Ex. “aba du mama ba?”
- Imitate sounds and words
- Identify body parts
- Follow simple commands - “come here”, “give me”
- Point to pictures when named

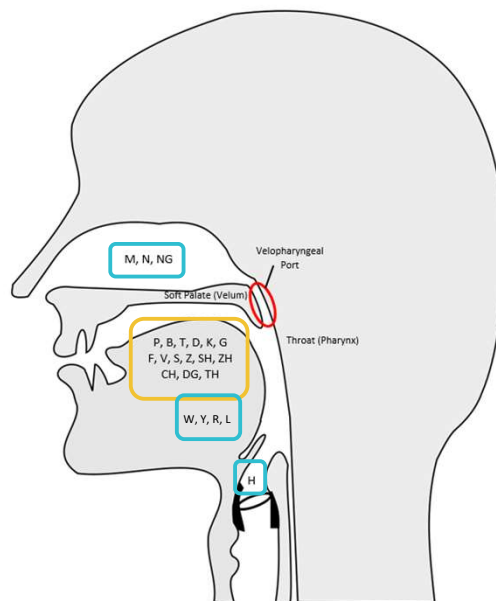
18-24 Months of age:

- the ba frequently learning new words
- Put two words together
- Use a variety of sounds (ex., /p, b, t, d, k, g/)
- Follows simple two step direction
 - Ex. “get it and put it in the box”

Rossetti, L. M. (1990). The Rossetti Infant-Toddler Language Scale. East Moline, IL: LinguSystems.



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How Does Sound Development Differ For Children With Clefts?

- Preference for
 - Nasal sounds - /n/, /m/, /ng/
 - Throat sounds or glottal stops - growling, grunting, etc.
 - Back of mouth sounds - /g/, /k/



Jones, C.E., Chapman, K.L., Hardin-Jones, M.A. (2003). Speech development of children with cleft palate before and after palatal surgery. *Cleft Palate-Craniofacial Journal*, 40(1), 19-31.



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After Palate Repair: What To Focus On

After repair, we want to focus on oral pressure sounds

- Early developing oral pressure sounds include: P, B, T, D, K, G
- Avoid or discourage use of harsh grunts, growling, or glottal productions
 - Ignore them, don't repeat them back
 - Say a different sound back to your child instead
 - Ex. Child: (growl sound) while playing with a car. Parent: "you're right, car!" "beep-beep"
 - Avoid saying "uh oh" and replace with "oh no", "oops" or "whoops"
- Praise your child for imitating sounds or saying words verbally
 - Ex. "thanks for telling me," "you used your lips just like me!"

Adriane L. Baylis, PhD, CCC-SLP, Anna K. Thurmes, MA, CCC-SLP. (n.d.). Tips for Stimulating Your Baby's Early Speech Sound Development. Minneapolis, MN; University of Minnesota. Retrieved January 2021, from <https://www.dentalclinics.umn.edu/sites/dentalclinics.umn.edu/files/tips-for-stimulating-your-babys-early-speech-sounds.pdf>.



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Strategies To Encourage Pressure Sounds

- Start with P and B sounds - visual sounds
- Encourage vocal play with lips (i.e. raspberries, lip smacking)
- Use words that start with the sound and emphasize the sound as you say it
 - Ex. “baby, b-b-b baby”
- Sit face to face with your child so they can see your mouth
- Point to/touch your lips as you say the sound
 - Use a mirror so your child can see their mouth too
- Put desired toy up next to/beside your mouth for a model



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Examples for P and B sounds

- Sample Activities:
 - “Pop pop!” with a bubble activity
 - P and B words related to your child’s preferred foods (ex. Puffs, Banana)
 - Wave and say “Bye bye” to toys
 - Family member names beginning with P or B (ex. Papa)
 - Animal Sounds: The sheep says “Baaaa!”
 - Environmental Sounds: “Beep Beep!”
 - Nursery rhymes with P and B words
 - Baby Bumble Bee, Wheels on the bus
- Sample words:
 - Bye
 - Bubble
 - Ball
 - Boo
 - Baba (bottle)
 - Beep
 - Pop
 - Poop
 - Papa
 - Puppy



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The Role Of Speech Therapy

- Between 50-70% of children with cleft palate will need speech therapy by preschool age (Beckett et al., 2018; Hardin-Jones & Jones, 2005)
- The earlier concerns are addressed, the easier they are to correct
 - Speech therapy has been shown to increase the number of sounds, accuracy of sounds, and reduced use of glottal stops/throat sounds for the children with clefts (Lalsa, 2017; Scherer et al., 2008)
- As a caregiver, you should be involved in the therapy process:
 - Ask your child's therapist to explain what they're working on
 - Ask for ideas on how to practice at home

Beckett, L., Chapman, K., & Hardin-Jones, M. (2018, April). *Profiling speech/language outcomes of children with cleft palate at 39 months of age*. 75th Annual Meeting of the American Cleft Palate-Craniofacial Association, Pittsburgh, PA

Hardin-Jones, M. A., Jones, D. L. (2005). Speech production of preschoolers with cleft palate. *Cleft Palate-Craniofacial Journal*, 42(1), 7-13.

Scherer, N. J., D'Antonio, L. L., & McGahey, H. (2008). Early intervention for speech impairment in children with cleft palate. *The Cleft palate-craniofacial journal : official publication of the American Cleft Palate-Craniofacial Association*, 45(1), 18-31. <https://doi.org/10.1597/06-085.1>

Lalsa S P. Early Intervention of Cleft Lip and Palate: Current Issues Practices and Protocol. *J Head Neck Spine Surg*. 2017; 1(2): 555556. DOI: 10.19080/JHNS.2017.01.555556



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The Role Of Your Cleft Palate Team Speech Pathologist

- Your child should see the speech pathologist on their cleft palate team even if they are already receiving speech therapy.
 - Monitor progress with speech/language development
 - Assess how well the palate muscles are working for speech development
 - Listen for development of compensatory mislearning errors
 - Refer for speech therapy if necessary
- If you have questions or concerns, reach out to your team speech pathologist!



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Meet Matt Edwards



0 months



2 Months with NAM



4 months (After lip surgery)



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Meet Matt Edwards (cont'd)



17 months



20 months



2 years old and now a big brother!



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A Family Journey

- **Our story**
(Finding NYU, Gathering our support team)
- **Working with a speech therapist**
(NYU, EI, Group Speech and Private)
- **Encouraging speech and language development at home**
(Books, no TV, monthly goals, caregiver speech training)
- **Challenges as parents**
(Waiting, understanding common vs cleft-specific speech delays, and trusting process)
- **Outcomes**
(Today Matt says over 200 words and can combine 3-5 words)



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A Family Journey (cont'd)

- **Making speech therapy fun**
(Play games, sing silly songs, use mealtimes as learning times)
- **Matt's speech-related challenges**
(Palate sounds took a long time to come in. He is now having a hard time with "S" and "F" sounds)
- **Impact of early speech therapy on Matt's trajectory/future**
(Early intervention was key to our success. Start speech therapy ASAP to prevent any possible delays.)
- We are true believers in speech therapy and will continue speech services for the foreseeable future.



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Question & Answer



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Closing Remarks

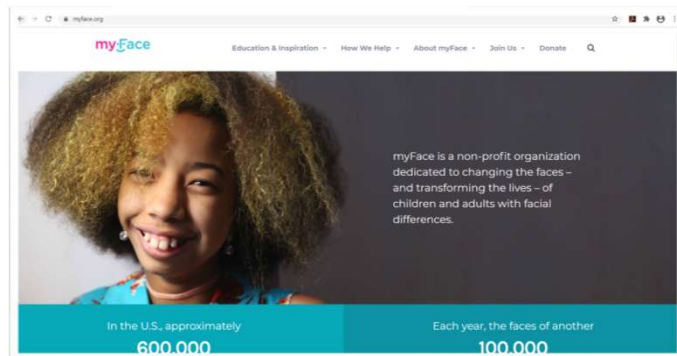


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visit [myFace.org](https://myface.org)



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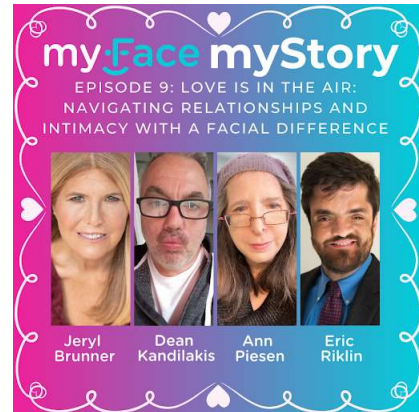


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Upcoming Events at myFace

Join us on
Wednesday, February 9th at 6 PM ET
for a discussion on navigating relationships
and intimacy in the craniofacial community!

Register at:
www.myface.org/mystory/



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Upcoming Events at myFace

Join us on
Tuesday, April 26th at 7 PM ET
for a webinar on navigating the
transition to adult care in the
craniofacial community!

To learn more, and to register for the
next webinar in this series, please visit
www.myface.org/transitionofcare



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Thank You

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