

Abstracts of Current Literature

Anatomy

PARANASAL SINUSES FROM BIRTH TO LATE ADOLESCENCE. 1. Size of the Paranasal Sinuses as Observed in Routine Posteroanterior Roentgenograms. MARION M. MARESH. Am. J. Dis. Child. 60:55-78, July, 1940.

This study conducted at the Child Research Council and the University of Colorado School of Medicine is summarized by the author as follows:

"Tracings were made from the routine roentgenograms of the sinuses of 100 children who are being followed from birth to maturity at the Child Research Council. The youngest children had been followed up to 5 years of age. The oldest child had been followed up to 17 years of age. Examinations have been continual, beginning during the first month of life in most cases. The growth of the sinuses in these children is discussed and illustrated; stress is laid on the variations in size and shape of the maxillary sinuses and the variations in time of development and in size of the frontal sinuses."

NOYES, Chicago.

Dental Caries

*DIET AND DENTAL CARIES. R. W. BUNTING. New York State J. Med. 39:18, 1939.

The active destructive agent in dental caries is some form of organic acid formed on the tooth by products of the local fermentation of carbohydrates. The most prominent of bacterial agents is the oral *Lactobacillus acidophilus*. While lack of cleanliness may produce caries, it is not the most important cause. Caries is not associated with either a low calcium or a low phosphorus intake. Forcing of viosterol, calcium and phosphorus, and vitamin C fails to reduce caries. The most important etiologic factor is acid-producing bacteria, and the most effective method of reducing dental caries is to eliminate sugar and starch from the diet. In Michigan a clinic for the control of caries is now in operation where bacterial counts of oral *L. acidophilus* are made on samples of saliva sent to the laboratory. (AJDC, 59:441)

*EFFECTS OF NATURAL AND REFINED SUGARS ON ORAL LACTOBACILLI AND CARIES AMONG PRIMITIVE ESKIMOS. DONALD B. WAUGH and LEUMAN M. WAUGH (with the technical assistance of MARJORIE P. WAUGH). Am. J. Dis. Child. 59:483-489, 1940.

Two groups of Eskimos were fed sugars in addition to their regular diets for periods of 5 to 13 weeks; one group was fed natural sugars (raisins, dried figs or dates, maple syrup or honey) and the other group was fed refined sugars (preserved figs, chocolate candy bars, lollipops, sugar cubes). Examinations of the mouth and teeth and cultures of the saliva for lactobacilli were made before and after the feeding period. From the results it is concluded that with the Eskimo refined sugars initiate and cause an increase in the growth of oral lactobacilli and that they also initiate and cause an increase in dental cavities, whereas natural sugars neither initiate nor cause an increase in the growth of oral lactobacilli or in dental cavities.

GROWING PERFECT TEETH. LEUMAN M. WAUGH. Am. J. Orthodont. and Oral Surg. 26:356, April, 1940.

A radio broadcast by the author dealing with the relation of sugar to dental caries is presented. The Eskimo who abstains from sugar is free from caries, so the author recommends a minimum of sugar for our children.

LEWIS, Dayton.

* Reprinted by courtesy of *Child Development Abstracts and Bibliography*.

RELATION OF NUTRITION TO DENTAL CARIES; A REVIEW OF RECENT FINDINGS. L. M. FLEISCH. J. A. D. A. 27:550, April, 1940.

In spite of the massive volume of literature on dental caries, the various factors of this disease are of such a nature that no generally accepted theory has evolved. There is an increasing amount of evidence indicating that refined carbohydrates are important factors in the etiology of dental caries. These seem to be harmful due to the absence of certain substances, for example, part of the Vitamin B complex rather than because of substances they do contain. Carbohydrates pervert the appetite and lead to a deficiency of other necessary food factors

PREWITT, Lexington.

ROLE OF DIET IN THE CONTROL OF DENTINAL CARIES. JULIAN D. BOYD. J. A. D. A. 27:750, May, 1940.

This report is based on a statistical study of the records of certain children, 80 per cent of whom were living on a controlled diet while the remaining 20 per cent were under no diet control. The author states that his data seems to establish beyond controversy that caries can be controlled through the adoption of a regimen which appears to have no direct relationship to the status of the mouth. The child with active caries must be considered to have a disturbance of metabolism, and this can be corrected most effectively through enrichment of the diet so that it will favor an optimum state of nutrition. This preserves not only the teeth but their possessor.

PREWITT, Lexington.

Dentistry and Dental Relations

ORTHODONTICS AS A SUPPLEMENT TO ALL RESTORATIVE DENTISTRY. OREN A. OLIVER. Am. J. Orthodont. and Oral Surg. 26:320, April, 1940.

This presentation deals with the co-operation necessary between orthodontia and the other branches of restorative dentistry. It is pointed out that a new day is dawning and leaders of the dental profession are realizing that the ideal of preventive dentistry is greater than the ideal of restoration after damage has been done.

LEWIS, Dayton.

ORTHODONTICS—ITS PLACE IN MILITARY DENTISTRY. LEIGH C. FAIRBANK. Am. J. Orthodont. and Oral Surg. 26:313, April, 1940.

The head of the U. S. Army dental corps reveals plans for the expansion of the army dental corps to an organization fit to cope with the problems of war. The development of the maxillofacial teams emerged from the last war. These teams consist of oral and plastic surgeons, orthodontists, and prosthetists.

LEWIS, Dayton.

Education, Legislation, Economics

THE RELATION OF ORTHODONTICS TO THE PRESENT SOCIAL TREND. FREDERICK C. ELLIOTT. Am. J. Orthodont. and Oral Surg. 26:338, April, 1940.

It is estimated that twenty-five million children in this country need orthodontic service. Of this number more than one-third can pay nothing for treatment. The essayist asks what the orthodontist is doing to engineer a change so that service may be rendered to these unfortunate children.

Orthodontists should realize that more well trained men are needed so that every community could provide orthodontic service. By educational methods the public will learn that the trained specialist is one who holds a certificate granted by the national organization of the special group. This will encourage the general practitioner to seek more training in postgraduate courses offered by dental colleges in order to keep his orthodontic patients. The undergraduate students should be trained in the prevention of malocclusions rather than meager clinical training.

LEWIS, Dayton.

Etiology

RELATIONSHIP OF ORTHODONTICS TO PEDIATRICS. HENRY E. STAFFORD. *Am. J. Orthodont. and Oral Surg.* 26:325, April, 1940.

Most of the factors of heredity, prenatal influences, habits, nutrition, and metabolic disturbances are mentioned in this paper. Allergies and endocrine disorders are emphasized.

LEWIS, Dayton.

ROUND TABLE DISCUSSION ON SUCKING HABITS AND DEFORMITIES OF DENTAL ARCHES. HAROLD J. NOYES and WILLIAM S. LANGFORD. *J. Pediat.* 27:122-135, July, 1940. (See Habits)

Fractures

FRACTURES OF THE MANDIBLE: A STATISTICAL STUDY OF ONE HUNDRED CASES. JOSEPH A. DOHERTY. *J. A. D. A.* 27:735, May, 1940.

The author's purpose was to gather data pertaining to fractures involving the lower jaw and where possible compare with the findings of other investigators. Such findings as etiology and location (66 per cent single, 31 per cent double) were recorded. Period of immobilization varied from a few hours to twenty-one days, average being about 6½ days. The time necessary for union has been given as thirty-one to forty-three days and where longer time is necessary the complications are invariably abscess formation.

PREWITT, Lexington.

FRACTURES OF THE MAXILLA. FRANK A. RICHISON. *J. A. D. A.* 27:558, April, 1940.

This article discusses the incidence and location of fractures; the symptoms of such fractures; the treatment; complications; instructions for making a useful head cap; and gives several case reports. The symptoms are mobility, crepitus, deformity, pain, tenderness upon pressure, loss of function, edema, ecchymosis, shock and mental depression. The latter two are general symptoms. Treatment consists of correcting the deformity; maintaining the fragments in apposition until union occurs; preventing infection and its sequelae; and providing comfort to the patient.

PREWITT, Lexington.

ORTHODONTICS—ITS PLACE IN MILITARY DENTISTRY. LEIGH C. FAIRBANK. *Am. J. Orthodont. and Oral Surg.* 26:313, April, 1940. (See Dentistry and Dental Relations.)

Growth and Development

CRITICAL REMARKS ON THE PROBLEM OF GROWTH OF THE MANDIBLE DURING THE PERIOD OF SHEDDING AND CHIN FORMATION. PAUL ADLOFF. *Deutsche Zahn- Mund- und Kieferheilkunde.* 6:401, July, 1939.

A cross section of different theories on the length and the width of both arches during shedding of teeth and its importance for the orthodontist. The difficulties of the problem are those of method. Impressions taken at regular intervals only furnish the right material for measurements and comparison. For this period Korkhaus finds an enlargement of the arch up to 7 mm. and more; the height less—seldom up to 4.5 mm.

Chin characterizes man. Walkhoff believes the ability of speech has formed the chin by inducing a new function to a group of muscles. Bolk claims (examining only mandibles) that the replacing permanent teeth do not require more space than the deciduous. The alveolar space remains the same. The growth center in the posterior part of the mandible enlarges the body by moving new bone material forward and thus creating new space for the six year molar. After eruption the enlargement of the alveolar process stops but not the growth of the basal portion of the mandible which, moving forward below the alveolar process, finally forms the prominent chin. The fact that there is no rest period between the eruption of the first and second molar in anthropoids accounts for the prevalent growth of the alveolar part (to accommodate all erupting teeth) and the apparent "retention" of the basal portion.

Weidenreich makes the regressional process in the alveolar bone with reduction of the size of the teeth, especially of the roots responsible for the passive protruding of the chin. This opinion is based on the assumption that the present form of occlusion (orthognathic) is derived phylogenetically from a prognathic type.

The author revises other theories and emphasizes the necessity of comparing the results of orthodontic, anatomic and developmental investigations.

DEPARTMENT OF ORTHODONTIA, University of Illinois.

*DENTAL NEEDS OF GRADE SCHOOL CHILDREN OF HAGERSTOWN, MARYLAND. J. W. KNUTSON, HENRY KLEIN and CARROLL E. PALMER. J. A. D. A. 27:579-588, 1940.

*EFFECT OF THYROXINE ON THE ERUPTION OF TEETH IN NEWBORN RATS. D. DARNOFSKY and E. P. CRONKITE. Proc. Soc. Exper. Biol. and Med. 40:568, 1939. (AJDC, 59:663)

FACTORS INFLUENCING APPEARANCE OF CENTERS OF OSSIFICATION DURING EARLY CHILDHOOD
CARL C. FRANCIS. Am. J. Dis. Child. 59:1006-12, May, 1940.

The subjects of the study comprise four groups. 1, Twenty-five girls and twenty-five boys entirely or largely breast fed for three or more months none of whom had any severe or prolonged illness during the first year. 2, A similar number of each sex differing essentially only in that they had no appreciable amount of breast milk and somewhat greater amounts of mineral and Vitamin D. 3, The same number and similar sex division of infants who showed some difficulty in gastrointestinal adjustment. Only five of the babies in this group were entirely breast fed. 4, Thirty-three infants who died at ages corresponding to the time of examination of the living children thirteen of whom were female and seventeen were colored. All of the infants in groups 1, 2, and 3, were white and benefited from pediatric supervision throughout the period of observation.

The findings of the study are summarized by the author as follows:

"Epiphysial ossification is a more delicate objective indicator of constitutional health than is progress in height or weight.

"Gastrointestinal sensitivity in infancy, even when so well controlled that there is no retardation of growth in length, nevertheless tends to retard epiphysial ossification.

"In healthy children the degree of epiphysial ossification is influenced by the amount of mineral available in the diet.

"Severe or prolonged illness holds back general progress, but epiphysial ossification shows the greatest retardation.

"The advance in precocity of the female child over the male child in epiphysial ossification disappears in severe prolonged illness."

NOYES, Chicago.

*RELATION OF NUTRITION TO DENTAL CARIES; A REVIEW OF RECENT FINDINGS. L. M. FLEISCH. J. A. D. A., 27:550-554, 1940.

Habits

OBSERVATION OF SUCKING HABITS OF NEW-BORN BABIES AND INFANTS. ELSBETH V. SCHNIZER. Deutsche Zahn- Mund- und Kieferheilkunde. 6:412, July, 1939.

The initial stages of finger or fist sucking in 116 babies 1-12 days old, and in 53 infants up to 9 months of age are systematically checked as to frequency, intensity and special kind of sucking habits. General health and attitude are also taken into consideration. Sick and prematurely born babies do not suck at all. Occasional, mild sucking in early days develops gradually into an individual type of habit.

DEPARTMENT OF ORTHODONTIA, University of Illinois.

ROUND TABLE DISCUSSION ON SUCKING HABITS AND DEFORMITIES OF DENTAL ARCHES. HAROLD J. NOYES and WILLIAM S. LANGFORD. J. Pediat. 27:122-135. July, 1940.

This report of the round table discussion held at the November, 1939 meeting of the American Academy of Pediatrics includes a statement of the dental aspects of the problem

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by Dr. Noyes, an exposition of the psychiatric side by Dr. Langford, and the answers given by both authors to questions put them by persons in attendance at the sessions.

The dental summary is comprised of an abridged description of the biologic mechanism which governs the conformity of the dental arches followed by examples of the manner through which this mechanism may be influenced by external forces. Whether the deviation from a satisfactory functional arch configuration demands correction depends upon the presence of circumstances which either prevent or interfere with the normal functional forces which may restore harmony. To determine this requires knowledge of the mechanism, the patient and his environment. The problem must in addition be considered from the standpoint of the welfare of the entire body economy, recognizing those instances where the best interests of the part may have to be sacrificed in the broader interests of the whole.

From a psychiatric viewpoint Dr. Langford believes the sucking reflex to be a normal part of the infantile pattern. When overindulged in the age of its normal appearance or carried to a later period, the causes should be investigated with a view to eliminating the cause which prompts this indulgence rather than relying solely upon restraint. In dealing with the problem consideration of the mental age and environment of the subject as well as the method require consideration.

NOYES, Chicago.

Medicine and Medical Relations

RELATIONSHIP OF ORTHODONTICS TO PEDIATRICS. HENRY E. STAFFORD. *Am. J. Orthodont. and Oral Surg.* 26:325, April, 1940. (See Etiology)

Miscellaneous

*CHEWING AS A TECHNIQUE OF RELAXATION. H. L. HOLLINGWORTH. *Science.* 90:385-387, 1939

The author presents a summary of a series of experiments designed to throw light on the use of chewing as a "tension outlet." Studies were carried out in which tension was manifested as restlessness, as a feeling of strain, as fatigue, as effort, as interference, and as direct muscular tension. It is found that "the collateral motor automatism involved in the sustained use of the conventional masticatory muscles does result in a lowering of tension, and the tension thus reduced is muscular." (PA, 14:130)

Nutrition and Metabolism

*A PRELIMINARY NOTE ON DEFECTIVE TOOTH STRUCTURE IN YOUNG ALBINO RATS AS A RESULT OF VITAMIN A DEFICIENCY IN THE MATERNAL DIET. HELEN MELLANBY. *Brit. Dent. J.* 67:187-194, 1939. (CA, 34:479)

Pathology

*CARE AND TREATMENT OF CHILDREN WITH CLEFT PALATE AND HARELIP. E. EDBERG. *Svenska läk.-tidning.* 35:2171, 1938. (AJDC, 59:404)

CLEFT PALATE AND CLEFT LIP. WILLIAM L. SHEARER. *J. A. D. A.* 27:601, April, 1940.

The author points out deviations observed in the clefts. He believes that such children usually have normal amount of tissue in the palate. This tissue is simply not united in the median line, but when the borders of the fissure are brought into contact we have brought the upper jaw back to its normal breadth and its normal relation to the lower jaw. He also describes the practice advised by the late T. W. Brophy by which the defect can be overcome at a time of life when it can be corrected most successfully and easily.

PREWITT, Lexington.

* Reprinted by courtesy of *Child Development Abstracts and Bibliography.*

CLINICAL PATHOLOGY OF THE PERIODONTAL POCKET. RUDOLF KRONFELD. J. A. D. A. 27:499 April, 1940.

The author considers three fundamental periodontal conditions. These are (1) marginal gingivitis, which is due mainly to local irritation and its treatment lies largely in the hands of the general practitioner; (2) deep suppurating pockets which are largely treated by the specialist in periodontia and; (3) bone atrophy in its various forms. The latter is very difficult to treat and significant bone regeneration can only rarely be expected. More often the best that can be done with this group is to slow down bone atrophy and preserve the involved teeth for a varying length of time. The etiology of pockets is unknown but the mechanism of formation is understood, as well as the tissue pathology. These factors are thoroughly discussed.

In conclusion the author states that Pyorrhea (pocket formation and loss of bony support) is an extremely chronic and protracted condition with a definite tendency to progress and little possibility of restitution and repair. The best we can do is to prolong the span of usefulness and health.

PREWITT, Lexington.

DISCRIMINATION IN THE STATUS OF PULPLESS TEETH. CLARENCE O. SIMPSON. J. A. D. A. 27:525, April, 1940.

The ever changing status of pulpless teeth is discussed. Emphasis is placed on the current belief, instigated by the convincing investigations of Hatton, that all pulpless teeth are not pathogenic. The three methods used to determine the status of pulpless teeth are clinical, bacteriological and radiographic. Each is considered thoroughly and properly evaluated according to its limitations and possibilities.

PREWITT, Lexington.

PERIODONTIC PROBLEMS IN THE CHILD PATIENT. JOHN C. BRAURER. J. Periodont. 11:7-13, Jan. 1940.

A concise review of several of the important systemic conditions which give rise to periodontal disturbances in childhood. Scurvy, calcium metabolic disturbance, diabetes, blood discrasias and lues are discussed.

NOYES, Chicago.

TIC DOULOUREUX: ETIOLOGY, ACCURATE DIAGNOSIS AND TREATMENT BY THE USE OF TYPHOID VACCINE. T. A. HARDGROVE. J. A. D. A. 27:507, April, 1940.

The author presents evidence in this second report of the effective treatment of tic douloureux by the use of typhoid vaccine. He believes that tic is but an aftermath of a previous typhoid invasion or infection (need not have a clinical picture of typhoid) and that true cases of tic douloureux may be successfully treated by immunization. Treatment consists of increasingly larger doses every five to six days until pain disappears. A total of four courses of injections given three months apart are usually necessary for complete immunization.

PREWITT, Lexington.

Psychology

HOW CHILDHOOD FEARS TOWARD DENTISTRY CAN BE CONTROLLED. GEORGE E. MORGAN. J. A. D. A. 27:766, May, 1940.

The problem of controlling child behavior in the dental office differs from the problems of child psychology in the home of school. Childhood fears toward dentistry are acquired and influenced for good or bad by the attitude of the parents or teacher and the attitude of the dentist. Most children are placid and accept dental care as they do other things in life, with a matter-of-fact attitude.

However, three types of personality patterns present a problem of management from the standpoint of dentistry:

1. Timid type who demonstrates no initiative.
2. Bully or obstinate type, active, bluffer, appears to be brave.
3. Shy or bashful child who suffers from lack of courage.

PREWITT, Lexington.

Speech

DISTORTED SPEECH IN YOUNG CHILDREN. ISAAC W. KARLIN, ADELLA C. YOUTZ and LOU KENNEDY. *Am. J. Dis. Child.* 59:1203-18, June, 1940.

"In conclusion," state the authors, "it appears that even in this relatively homogeneous group a number of factors are associated with dyslalia. These factors, as exhibited by our group, are: hearing loss, especially in the higher frequencies; a lack of motor speed; endocrine dysfunction, and unfavorable environmental relation. These factors, singly or in combination, may operate to produce dyslalia."

NOYES, Chicago.

Technic and Metallurgy

LATEX RUBBER AS AN ORTHODONTIC AID. GEORGE S. CALLAWAY. *Am. J. Orthodont. and Oral Surg.* 26:353, April, 1940.

Methods are described for the construction of bite straps, labial shields, and bite blocks by using latex rubber. Protein-free prevulcanized rubber is recommended.

LEWIS, Dayton.

THE PHILOSOPHY OF TREATMENT WITH THE LINGUAL ARCH. WILLIS H. GRINNELL. *Am. J. Orthodont. and Oral Surg.* 26:330, April, 1940. (See Treatment and Retention)

Temporomandibular Joint

EXPERIMENTAL INVESTIGATION OF THE CHANGES IN THE MANDIBULAR JOINT CAUSED BY APPLYING FUNCTIONAL ORTHOPEDICS. KARL HÄUPL and RUDOLPH PSANSKY. *PRAG. Deutsche Zahn- Mund- und Kieferheilkunde.* 6:439, July, 1939.

A short report and several pictures illustrate the histological findings of the changes in the mandibular joint of an adult ape (pavian) after wearing a functional orthopedic appliance for eleven weeks. Considerable bone apposition is found in the glenoid fossa, the condyloid process and at the site of the muscle attachments of the ramus and angle.

Department of Orthodontia, University of Illinois.

SOME CONTROVERSIES OVER THE TEMPOROMANDIBULAR JOINT. L. B. HIGLEY. *J. A. D. A.* 27:594, April, 1940.

The author considers the viewpoints held by the different investigators on the following topics related to the Temporomandibular Joint controversy and orthodontic treatment: development of the joint structures; adaptive changes in the joint; muscles controlling movement; importance of the joint to articulation; movement patterns of condyle and mandible; relationship of musculature of the joint to tooth arrangement; overclosure of the mandible.

PREWITT, Lexington.

Treatment and Retention

NEUTROCLUSION? WITH ONE PEG LATERAL INCISOR AND ONE LATERAL INCISOR MISSING. LOUIS S. WINSTON. *Am. J. Orthodont. and Oral Surg.* 26:465, May, 1940.

This is the discussion of a case in which a peg lateral received a porcelain jacket while space for the missing lateral was filled by moving the posterior teeth forward. It was treated by means of combination labial and lingual appliances. The total elapsed time of treatment was six years and four months. Final models and photographs taken nine years after removal of all appliances are shown.

LEWIS, Dayton.

THE PHILOSOPHY OF TREATMENT WITH THE LINGUAL ARCH. WILLIS H. GRINNELL. *Am. J. Orthodont. and Oral Surg.* 26:330, April, 1940.

Credit is paid to Mershon for the philosophy and evolution of the lingual arch. The technic is based upon certain natural biologic laws which must constantly be kept in mind. Growth, the relation between form and function, and the development of the face are all important. Treatment should not be continuous. Only enough mechanical treatment to bring about the normal arrangement for the particular age should be attempted, for appliances cannot speed up growth, change its direction, or cause it to take place.

LEWIS, Dayton.

REPORT ON TREATMENT OF CLASS III. FRED WINTER. *Am. J. Orthodont. and Oral Surg.* 26:346, April, 1940.

An integral part of this treatment was the use of a chin cap at night with Class III elastics. The patient was twenty-two years of age. Photographs and models are illustrated of the patient, aged twenty-two at the start of treatment, before treatment and five years after.

Two other Class III cases are also reported, one, a man forty-four years of age, the other a patient treated by means of suitable artificial denture.

LEWIS, Dayton.

RESPONSE TO THE PAPER BY DR. MOSKOWITZ, "TIME TO BEGIN ORTHODONTIC TREATMENT." EDWARD M. GRIFFIN. *Am. J. Orthodont. and Oral Surg.* 26:556, June, 1940.

A review of the cardinal points of the paper by Moskowitz with quotations from Rogers, Lischer, Todd and others. Griffin believes little evidence is shown of the value of early treatment; that quite a controversy exists over the time of treatment of Class II cases. It is felt Class III cases should be started early, but like Class II and cases of deficient vertical growth, final treatment must be made in the permanent dentition.

LEWIS, Dayton.

SURGICAL TREATMENT OF MANDIBULAR DEFORMATIONS. ARTHUR E. SMITH and JAS. B. JOHNSON. *J. A. D. A.* 27:689, May, 1940.

Surgical interference is indicated where treatment dependent on tooth movement can not be expected to establish proper relation of the teeth or materially improve the facial lines. Surgical procedures are described for each of these various conditions, (1) bilateral retrusion of the mandible which may be accompanied by a temporomandibular ankylosis, (2) underdeveloped symphysis, (3) mandibular prognathism, (4) osteotomy of ascending rami, (5) open bite.

The author briefly discusses certain types of deformities of the jaws. Disease, trauma or maldevelopment of the tissues may cause maxillofacial alterations. In order to render efficient service, there should be a close co-operation between the plastic surgeon and the orthodontist. Several case reports are given.

PREWITT, Lexington.

TIME TO BEGIN ORTHODONTIC TREATMENT. MAURICE MOSKOWITZ. *Am. J. Orthodont. and Oral Surg.* 26:548, June, 1940.

The question of age for orthodontic treatment is shown to be inseparably linked with diagnosis and it seems unreasonable to set a chronologic time for it. One should attempt to produce conditions of occlusion and function and stimulate development that will be normal for the patient at his specific developmental age.

LEWIS, Dayton