

MOTION PICTURES RECOMMENDED AS AIDS IN TEACHING PHYSIOLOGY OF ALIMENTARY CANAL

C. F. CODE

Mayo Foundation, Rochester, Minn.

I. EMBRYOLOGY

'The Development of the Gastrointestinal Tract' (Silent)

Author: Joseph J. McDonald, Dept. Surg., Columbia Presbyterian Med. Ctr., N.Y.C.

Available from: Amer. Med. Assoc., 535 N. Dearborn St., Chicago 10, Ill.

Charge: \$4.00

Duration: 35 minutes

Comment: An embryological not a physiological film. It presents in motion sequence an excellent visualization of the embryological development of the alimentary canal of the human.

II. MOTOR ACTION

A. Deglutition

'The Mechanism of Swallowing' (Silent)

Authorship: Dept. of Radiology, Univ. of Rochester Sch. of Med. and Dentistry Rochester, N.Y.

Available from: Univ. of Rochester Sch. of Med. and Dentistry

Charge: nil

Duration: 15-20 minutes

Comment: Superb teaching film illustrating by cine-radiographic means the mechanisms involved in the movement of air and liquid from lips to esophagus.

'Intraoral and Pharyngeal Structures and Their Movements' (Talkie, color)

Authorship: Dept. of Surgery, Veterans Administration
Available from: Veterans Administration, Washington 25, D.C.

Charge: nil

Comment: Superb motion picture showing movements in mouth and pharynx during respiration, deglutition and speech in a patient with lower half of face mostly removed. A wonderful companion piece to 'The Mechanism of Swallowing'.

'Deglutition' (Silent)

Author: Lester W. Paul, Dept. of Radiology, Univ. of Wisconsin, Madison 6, Wis.

Available from: Dr. Lester W. Paul

Comment: Roentgen cinematography by means of image intensifier; passage of barium with swallowing through pharynx; pharyngoesophageal and gastroesophageal junctions are illustrated.

B. STOMACH

'Movements of the Stomach' (Silent)

Authors: Walter C. Alvarez and Arnold Zimmerman
Available from: Encyclopaedia Britannica Films, Inc.,
1150 Wilmette Ave., Wilmette, Ill.

Charge: nil

Comment: A very interesting movie, made over 32 years ago, showing direct observation of movements of stomach in anesthetized dogs, rabbits and cats after removal of abdominal wall. Some excellent illustrations of type II contractions in the dog.

'Human Antral Gastric Motility' (Silent)

Authors: Alan W. M. Smith, Charles F. Code and
Jerry F. Schlegel

Available from: Photographic Dept., Mayo Clinic,
Rochester, Minn.

Charge: nil

Comment: Cineradiographic identification of type I and type II waves in the antrum of the human stomach with an indication of their function. Makes a fine combination with the Alvarez film on gastric contractions of the dog.

C. SMALL BOWEL

'Intestinal Peristalsis' (Silent)

Authors: Walter C. Alvarez and Arnold Zimmerman
Available from: Encyclopaedia Britannica Films, Inc.,
1150 Wilmette Ave., Wilmette, Ill.

Charge: nil

Comment: Interesting historically but confusing physiologically. Direct observations of intestinal movements in anesthetized animals. Many of the motility patterns seem abnormal. Some of the spastic hyperactivity may be related to the morphine used in the anesthetic.

'Direct Observation of Human Intestinal Motility' (Silent, Color)

Authors: N. C. Hightower, R.K. Ghormley and C. F. Code

Available from: Photographic Dept., Mayo Clinic,
Rochester, Minn.

Charge: nil

Comment: Observations on a healthy conscious patient with a large ventral hernia. Useful motion picture to show changes in amount of activity in small bowel with a meal, after morphine, prostigmine and bantnine. Also illustrates rhythmic segmentation in small bowel, haustral contractions and mass movement in large bowel.

D. GALL BLADDER

'Contraction and Evacuation of the Gall Bladder in the Rabbit Following the Intravenous Injection of the Cholecystokin' (Silent)

Authors: D.N. Danforth, H. Doubilet and A.C. Ivy
Available from: Audio Visual Medical Education Dept.,
303 E. Chicago Ave., Northwestern Univ. Med.
School, Chicago 11, Ill.

Charge: nil

Comment: Historically interesting. Illustrates early experiments with cholecystokin--slow diminution in size of gall bladder of three rabbits following injections of cholecystokin.

E. INTESTINAL VILLI

'Movement of Intestinal Villi' (Silent)

Author: F. Verzar

Available from: British Film Institute, Great Russell
Street, London, England

Charge: 6 s

Duration: 4-5 minutes

Comment: Copy of film reviewed was badly scratched. Despite scratches film is of great interest since it is only motion picture reviewed which shows pumping action of villi and illustration of probable significance of this action in absorption. An ancient film of some historical significance.

III. SECRETION

A. GASTRIC

'Gastric Secretion' (Talkie)

Author: R.A. Gregory, Univ. of Liverpool, England

Available from: Imperial Chemical Industries, Ltd.,
488 Madison Ave., New York 22, N.Y.

Duration: 45 minutes

Comment: Outstanding teaching motion picture illustrating construction of vagally innervated and

vagally denervated gastric pouches in dogs and their response to a meal of meat.

B. Pancreatic

'Pancreatic Secretion' (Talkie)

Author: R.A. Gregory, Univ. of Liverpool, England
Available from: Imperial Chemical Industries, Ltd.,
488 Madison Ave., New York 22, N.Y.

Duration: 45 minutes

Comment: An outstanding undergraduate teaching movie demonstrating pancreatic ductal system; loss of granules from cells during stimulation; action of vagal stimulation as well as stimulation by secretin and pancreozymin.

IV. DIGESTION

'Digestion of Foods' (Talkie)

Authors: A.J. Carlson and H. G. Swann
Available from: Encyclopaedia Britannica Films, Inc.,
1150 Wilmette Ave., Wilmette, Ill.

Duration: 16 minutes

Comment: Good demonstration of motor action of esophagus, stomach and intestinal villi.