

The Necessity of Repeated Examinations in the Fitting of Contraceptive Diaphragms

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IF THE instruction of a patient in contraceptive procedure is to give the greatest benefit, it must accomplish two objectives. It must provide protection against undesired pregnancy, and, of almost equal importance, it must provide the patient with assurance that such protection has been provided. Early in the history of the contraceptive clinic at the Woman's Hospital in Pasadena it was realized that these objectives could not be attained during a single visit. Practice and familiarity on the part of the patient were essential, and these could not be hurriedly acquired. It was also found that many questions requiring an answer from the physician did not occur to the patient during the first visit.

The following procedure was, therefore, decided upon. At the first visit the new patients are given a talk in a group. This talk explains pelvic anatomy and the placing and function of the diaphragm and jelly. After a pelvic examination for possible pathology, the correct size of diaphragm is determined and the patient is given practice in placing, in checking the correct position and in removal. No supplies are given at this time. The patient is asked to return for two further visits. Usually these are completed within two weeks, occasionally in as short a time as two days. The fee to be paid is determined according to the patient's income, and it is explained to her that this amount covers all further examinations and instructions which may be required for the period of a year. Every effort is made to keep the maximum fee lower than the fees charged by private physicians trained to give this same service in the locality of the clinic.

At the second visit the correct size is again determined. Further practice in placing and removal is given and the patient is questioned and her technic reviewed to make sure that she understands the anatomical relationships and the necessary procedure. An attempt is made to determine her emotional attitude toward sex and her own reproductive organs since her ability to learn

the technic depends upon this rather than upon her basic intelligence. Care must be taken to prevent the patient, in her eagerness to comply with the physician's desires, from appearing to have understood the instructions and learned to recognize the cervix when, in reality, she has not done so. Jelly and a practice diaphragm which is boiled between uses, are given at this visit. The patient is instructed, however, not to rely upon these for contraceptive protection until after the third visit. At this visit the patient is asked to insert the diaphragm at least six to eight hours before her appointment and to come in with the diaphragm left in place for that period of time.

During the third visit the vaginal walls are examined for signs of undue pressure. The size of diaphragm which will snap into place behind the symphysis and prevent the passage of a finger is again determined. The patient is given a new diaphragm for permanent use. A further return is requested at the end of three months for most cases. Those given premarital instruction are asked to return twice within the month after marriage. The final size is often only determined a month or so after marriage.

It was soon learned that the muscular spasm resulting from the fear of injury or the memory of pain at delivery or at previous examinations often resulted in the choice of a diaphragm which, at the next visit, was found to be too small. Such a diaphragm is apt to fall away from the suprapubic groove increasing the risk of failure of protection. At times, too, the edge of the diaphragm may obstruct the penis, the resulting impact giving rise to discomfort and complaints on the part of both partners. Relaxation is favored by gentleness in the examination and is increased if the patient is asked to bear down, thus opening the vaginal sphincter. The maximum of relaxation is attained only when the patient is familiar with the technic and has confidence in her own ability to place the diaphragm accurately.

In order to secure a quantitative estimate

of the changes in size which resulted from this procedure, the clinic records were reviewed. Consecutive cases were chosen in each group studied until the desired number were secured. The fittings in the series covered were made by two physicians, Dr. Eleanor Morgan and Dr. Ruth Aaron. Whether the re-examinations were made by the same physician depended on which of the four weekly sessions the patient chose for a return visit. The initial visits were made before October, 1940, the histories being reviewed early in 1942.

phragm of 3.7 mm. For 14 cases the increase amounted to 10 mm. or more. There was no substantial difference in the per cent requiring changes when calculated for those having had and those not having had children.

Further changes of size were found necessary when these cases were examined at a return visit made between three and twelve months after the three preliminary visits. Again, as the Table shows, an increase in average size was found indicated, amounting to a further 2 mm., a total of 5.7 mm.

TABLE I.
Numbers of Cases for Which Changes in Size of Contraceptive Diaphragms Were Prescribed

Change in size prescribed mm.	Normal cases without pregnancies in the preceding 12 months		Cases 3 months or less postpartum		Premarital cases	
	Between 1st and 3rd preliminary visit	Between 3rd preliminary and 3-12 months later	Between 1st and 3rd preliminary visit	Between 3rd preliminary visit and 3-12 months later	Between 1st and 3rd preliminary visit	Between 3rd preliminary visit and 3-12 months later
-7.5		1	1			
-5.		1	1			
-2.5	6	3	1	1		1
0	36	57	23	52	17	27
2.5	11	9	13	5	14	4
5	19	17	11	12	17	12
7.5	10	6	20	11	4	5
10	9	4	8	5	6	5
12.5	2	2	7	1		3
15	2		2	2		1
17.5			2	1		
20	2			1		1
22.5			1			
Changes to Dumas or Dumas to Spring Diaphragms	3		8	7	2	
All cases	100	100	98	98	60	60
Average increase in size	3.7 mm.	2.0mm.	4.9 mm.	2.9 mm.	3.5 mm.	3.7 mm.
Average total increase in size	5.7 mm.		7.8 mm.		7.2 mm.	

The first series studied was 100 consecutive normal married women who had had no pregnancies during the twelve months before admission. Forty-one per cent of these had had no children. It was found that in the three preliminary visits which were usually made within a period of two weeks, 64 per cent were given a different size at the final visit. The changes are shown in the Table, the average for the entire group being an increase in diameter of the dia-

phragm of 3.7 mm. Only 15 cases required no change from the first to the last of these visits.

To determine the effect on these changes of recent childbirth a series of 98 consecutive patients were reviewed who had been delivered within the three months previous to their first visit to the clinic. An average increase of 4.9 mm. was prescribed at the third visit and there was a further average increase of 2.9 mm. at the visit made two to twelve

months later; or 7.8 mm. in all. Only eight of the series required no change in size during the period of study. During the first year postpartum, there are two physical factors which cause the change in size of the vaginal canal. First, the flabby pelvic floor muscles and vaginal sphincter muscles become firm; second, the fat pads change in size.

Similar results were secured in a series of 60 consecutive premarital cases. There was an average increase in the prescribed size of 3.5 mm. in the preliminary visits and a further increase of 3.7 mm. during the subsequent period of two to twelve months, making the average final prescription 7.2 mm. larger than the initial. Only ten per cent of the cases required no change during the period covered.

It seems reasonable to conclude therefore, that the relaxation accompanying familiarity with the process of pelvic examination and diaphragm insertion results in the need of a size significantly larger than can be determined on the first visit. This finding was not substantially changed by premarital or postpartum status.

In many clinics it is felt that insistence upon more than one visit will lead to failure of the patients to complete their in-

struction, and result in undesired pregnancies which might not otherwise have occurred. That this is not a large factor in the Pasadena clinic is shown by statistics available for the 527 new cases admitted in 1940, a series which includes most of those included above. Of these, 502, or 95.3 per cent made two visits. Thirteen of those failing to complete the requested series of visits had been given practice supplies which they may have continued to use for protection; two were probably pregnant, and three were referred to private physicians. It seems probable that the average level of financial ability and foresightedness was higher than in many clinics, and that they were, therefore, less readily deterred from making repeated visits. For the group studied, however, the benefits of correct fitting, of additional protection, and of assurance that this protection had been secured appeared greatly to outweigh the loss of those who failed to return and the extra effort involved on the part of the physician and the patient.

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