

ISSUED SOLELY TO THE MEDICAL PROFESSION

FURTHER
IMPROVEMENTS
IN
CONTRACEPTION

BIRCON ——— DUREX

Further Improvements in Contraception

BIRCON

Durex Products



THE medical practitioner must indeed be bewildered both with the volume and the quality of the literature which is now available upon the subject of birth control. The greater proportion of it deals almost entirely with the ethics of this problem, but we would submit that the patients who wish to consult upon this matter have already decided for themselves that they wish to limit their family, but are at a loss as to the procedure. This is a point which has almost entirely been ignored.

Some few authors would indeed seem to be of the opinion that one method is applicable to all, but this is not so, and each case should be separately examined and appropriate advice given.

If satisfactory information is unobtainable, patients will try to gain it elsewhere, in all probability from some shop of questionable repute, and there purchase some apparatus or chemical without any knowledge of its use. The result can well be imagined and only serves to bring contraception into disrepute.

Until recently this state of affairs has been understandable since it has been the outcome of the lack of scientific knowledge which has existed. Without such knowledge uncertainty must perforce exist. This state, however, no longer exists, as a perusal of the literature mentioned in this brochure will show.

It is for this reason that we have collated facts which will definitely demonstrate that the products of our companies possess

great advantages over those generally found upon the market.

The product prepared by THE BIRCON LABORATORIES stands in an almost unique position in virtue of the fact that the makers have brought much knowledge to bear upon this specialised subject and have not been content in merely copying the methods devised by others.

GENERAL

It may not be out of place to touch upon certain methods which have been continuously used for countless ages. "Coitus interruptus" or "withdrawal" before sexual intercourse is complete is, and always has been, most common. A prolongation of the period of lactation is also believed, by some, to be successful in preventing pregnancy, but clinical evidence does not bear out this belief. Continence, or abstention from sexual intercourse, is also sometimes recommended, but little knowledge of human nature is required to realise that this is almost impossible where the greatest affection exists. We would thus venture to suggest that these

methods are almost bound to fail, sooner or later, or at any rate would exert a great strain upon the nervous system.

We must realise that some really scientific method is desirable which will allow intercourse to take place in a normal manner, and for this reason considerable attention has been paid to the use of chemicals. These are generally compounded in some solid or semi-solid so as to facilitate the insertion into the vagina. Such methods may, in general, be divided into three groups and each possesses undoubted advantages, but members of the medical profession alone can decide which is suitable for the patient concerned. Such a decision has, in the past, been almost impossible, but owing to the appearance of several new and valuable works this is relatively easy. References to these are made later.

Lastly we encounter such methods as rely upon the use of some apparatus, and in this group we find the condom, the occlusive pessary in its various forms, and douching. With the exception of the condom none of these methods can be

used entirely alone, and must be reinforced by one of the chemical ones mentioned above.

The practice of contraception is no new movement, and the lack of knowledge has, in the past centuries, resulted in the majority of women who have employed rudimentary methods either becoming pregnant or possibly even suffering harm. Present day research work has carefully examined the methods employed and increased the chances of success, while at the same time diminishing the possibility of illness. This desirable state has to a great extent been attained where the products of well-known firms are employed where every care is taken that material of only the highest standard of purity is used. Women who will use any method which is offered to them will still, however, follow in the footsteps of their forbears.

CHEMICAL METHODS

For a contraceptive method to be successful it is necessary that a barrier be formed between the ejaculated seminal fluid, situate within the

vagina, and the cervix in such a manner that the *os uteri* is blocked. This barrier may be provided by some chemical or be composed of rubber, as in the case of the occlusive pessary and the condom, both of which will later be considered.

The formation of these chemical films is brought about in several ways; we have the low melting-point solid such as cocoa-butter or gelatin, which upon melting forms a film, others are jellies of different consistency, while lastly some rely upon a small solid tablet which in the presence of moisture produces a foam. It will, however, be evident that the success of this latter method depends upon the consistency of the foam. Integrally compounded within the above ingredients are spermicidal chemicals which are spread by the media of suspension. It must again be noted that the spreading and penetration of a spermicidal foam-barrier will be much greater than that of the other methods. These points are illustrated in Figure 1 (page 12).

Dr. Baker considers that the foam tablet is the most ideal, and this worker lays down twelve points to which a chemical

spermicide should conform. From these it would indeed appear that BIRCON almost fulfils the desired qualifications and certainly approaches nearer to the ideal than any other on the market. This worker suggests that it should be solid, cheap, small in size, and unaffected by ordinary atmospheric conditions. BIRCON fulfils all these conditions and, in fact, is almost one-third lighter than the suggested weight. Amongst the remaining points are the suggestions that it should dissolve almost completely in water, that it should kill all the spermatozoa in five cubic centimetres of seminal fluid, that it should penetrate into the smallest crevices, and that it should form a dense foam of small bubbles so that the spermicide should be carried into every part of the vagina. We submit that BIRCON again fulfils all these qualifications. The formation of the dense foam is amply demonstrated in Figure 1, while the lack of insoluble residue is strikingly illustrated in Figure 2. This worker reports upon the spermicidal power of BIRCON and states that it seems to be more effective than the other "pessaries" tested.

Few of the foam tablets which are on the market contain an active chemical spermicide, in which respect BIRCON differs, and most of these products rely to a very great extent only upon their capacity to produce a carbon dioxide foam. This gas is to a certain extent lethal to the spermatozoa, but some more potent chemical should certainly be present to ensure an immediate and complete immobilisation of these cells. BIRCON relies upon the presence of this gas as well, but the spermicidal chemical employed is very potent and thus, together with the chinosol, a three-fold spermicidal protection is afforded. We, however, submit that this is in reality a second line of defence, since the remarkably stable penetrating foam is the chief factor, since it prevents the spermatozoa gaining an entrance to the cervical canal. The spermicides act in a rapid enough manner to ensure the death of the spermatozoa before the foam-film breaks.

In this connection it is pointed out that Dr. Baker carried out tests for spermicidal value upon practically every chemical

contraceptive extant, as a result of which he reports that:

"BIRCON is seen to be more effective than the other pessaries tested."—*Journal of Hygiene*, July, 1931.

It is not generally pointed out that it is necessary for the satisfactory disintegration of the tablet to be certain that sufficient vaginal moisture is present so that the tablet shall not only commence the action, but attain its maximum efficiency. If there be any doubt upon this subject, we strongly advise the dipping of the tablet into water before inserting it into the vagina.

The unique characters of the BIRCON foam are shown in Figure 1, and these are compared with two other preparations.

These are very typical of the usually obtainable foam tablets, which are not only larger in size, produce a much more open foam, but also consist of a considerable quantity of insoluble material which plays no part in the reaction and only leaves an undesirable residue within the vagina (see Figure 2).

FIGURE 1.

1. 2. 3. 4.

Photograph showing the difference between the foaming capacity of BIRCON and two other well-known preparations.

- | | | |
|---------|---------|--|
| Tube 1. | BIRCON. | This tablet weighs 0.6 grams. |
| 2. | "X." | A similar weight of another preparation. |
| 3. | "X." | The whole tablet 1.28 grams. |
| 4. | "Y." | Another foam tablet weighing 1 gram. |

2.5 cubic centimetres of water have been added to each of the above preparations in the test tubes. Interaction of the constituents has commenced, and the photograph was taken when the interaction was complete.

The factor of size is important, since many of those which are manufactured weigh at least 1 gram, while some are even heavier. Much of the material is insoluble and hence will leave a pronounced deposit within the vagina. Apart from the fact that a BIRCON tablet weighs only 0.6 grams, this tablet leaves a very much smaller deposit than even a comparable weight of one of the other preparations shown. This is amply demonstrated in Figure 2. These tubes are the same as those shown in Figure 1, but after the interaction is completed a further 2.5 c.c. of water has been added. The sediment is shaken up and then allowed to settle out.

FIGURE 2.

I. 2. 3. 4.

BIRCON.

"X."

"Y."

0.5 gram.

Whole.

It will be noted that scarcely any sediment is found in BIRCON, tube I, as compared with the other preparations.

The above photograph will readily convey the advantages of using BIRCON, for the condition of a vagina which has had a number of the less soluble tablets inserted in it can well be imagined.

Taking all the above factors into consideration, it will be evident that in this preparation BIRCON presents a very great improvement upon any of the foam tablets which have been manufactured before.

BIRCON SOME SPECIAL ADVANTAGES

In the preparation of chemical contraceptives there are innumerable small details which have to be studied, for upon these depend not only the keeping qualities, but also the ease with which the product may be manipulated. Many people will neglect to replace the cork in the tube after having used the tablet, and with certain products this forgetfulness will result in deterioration. One must, in all fairness, state that the greater number of preparations are stable under ordinary conditions, but under exceptional circumstances the presence of moisture would certainly cause interaction of the constituents to commence with resulting deterioration.

Originally, in order to cope with this problem, each tablet was wrapped in silver foil, but this method was abandoned, since the unwrapping called for appreciable time and effort. Many users prefer to use tablets which are, not so wrapped, and the possibility was consequently examined of attaining the same degree of security by some other means.

It has now been found that deterioration even under exceptional circumstances can almost entirely be prevented by the inclusion of certain crystals at the bottom of each tube and separated from the tablets by a layer of cotton wool. It must emphatically be stated that these crystals are not spermicidal and are only included so as to absorb any moisture which may be present in the atmosphere.

There is no relationship between the price of the product and its efficiency, and this would appear to be borne out by the work of Dr. Baker, who has reported upon the spermicidal power of various preparations. It would seem to be mani-

festly absurd to pay 5s. for a preparation when a smaller, better packed, more efficient, and British product can be obtained for 2s. 6d. only, which is the retail price of a tube of BIRCON containing one dozen tablets.

The advantages or disadvantages of other methods which are commonly employed and which rely upon chemicals for their efficacy must be studied.

The use of *suppositories* has been known for many centuries. These are small cones prepared from cocoa-butter or gelatin into which certain chemicals have been intimately compounded. The standard of these preparations is most variable. Some makers, indeed, maintain a very high degree of purity and excellence, but others do not bestow such care upon their products, with the result that many most unsuitable preparations are placed upon the market and consequently sold.

Cocoa-butter preparations are entirely insoluble, very greasy, and also possess a somewhat peculiar odour which is

regarded by many as unpleasant. Apart from individual feelings, one considers that it is unwise to habitually use within the vagina a material which is insoluble. According to Dr. Baker, it would seem that a much lower degree of spermicidal activity is found in this group, and thus a product which is somewhat more potent, less disagreeable, and likely to be more efficacious appears to be desirable.

Many spermicides are also prepared in a basis of gum tragacanth and gum arabic. These are the *jellies*. From certain points of view preparations of this nature are likely to be very efficacious, but three points are, however, obvious. More effort is required to insert a jelly than to place a small tablet such as BIRCON in position. It is also difficult to gauge the exact amount of jelly which has been inserted by the nozzle, and if too little has been expressed the requisite degree of protection may not have been conferred. Finally, if in an attempt to "make certain" too much jelly has been inserted,

we again find that a large excess of foreign material is present within the vagina, and also the disadvantages of over-lubrication will arise with its attendant drawbacks.

It will thus be evident from the foregoing that from every point of view BIRCON approximates to the ideal characteristics laid down by Dr. Baker and is a product which has been manufactured with the very greatest care, every thought being taken to guard against possible contingences. If the instructions are followed, freedom from pregnancy will result.

Two methods still remain to be considered. The first is used exclusively by the woman, the occlusive pessary, whereas when the condom is employed protection is in the hands of the male.

The *occlusive pessary* can scarcely be regarded as a single method, since it relies upon so many other precautions being taken. More especially is it recommended that some chemical means should also be employed as an additional safeguard. Cocoa butter suppositories cannot be used since cocoa butter

deteriorates the rubber. Some of the jellies also effect it in this manner, but the placing in position of a tablet such as BIRCON will undoubtedly act in a satisfactory manner and will effectively kill all the spermatozoa which have been ejaculated so that when the pessary is removed next morning none will have survived which might bring about a possible pregnancy.

If some satisfactory spermicide such as BIRCON is not used with the occlusive pessary, douching must take place before the removal of the pessary, so that spermatozoa are killed. The tablet can be slipped into the vagina outside the occlusive pessary. Here it will commence to act immediately ejaculation has taken place regardless of whether vaginal moisture be present or not.

DUREX

CONDOMS The *condom* has been employed for the last 300 years, but there is no comparison between the highly-finished product which can be purchased to-day and

that originally made. It is unnecessary to trace the stages of manufacture, but a short note may serve as an indication of the undoubted superiority of our products.

There is no doubt that the "DUREX" Condoms (or Protectives) now made available by The London Rubber Co. (an allied company to the Bircon Laboratories) are the best that have yet been made. They are manufactured from Liquid Latex, a remarkable new material, the tensile strength of which is five times that of ordinary rubber. The essential difference between protectives made of the latter material and the Latex product is as follows.

The ordinary type are manufactured under what is known technically as the "gasoline process," and are cured with a powerful chemical, usually carbon bisulphide. A certain proportion of this curing agent must inevitably be retained in the product after manufacture, and this in a comparatively short

period of time gradually saps the life of the rubber and causes it to rot. Thus, *unless the gasoline goods are quite freshly manufactured when required for use, there is always a distinct probability of breakage occurring with the possibility that pregnancy will result.*

The "DUREX" (Liquid Latex) product, on the other hand, is cured with boiling water only, no chemicals being used in the manufacture at all. In view of this fact, there is nothing present which will cause deterioration, and thus they are warranted to keep in perfectly sound and reliable condition without fear of breakage for a minimum period of two years in any climate. In temperate climates they will stock for five years.

A further unique feature is that although "DUREX" Protectives are exceedingly tough and strong, they are at the same time very soft, the texture being superficially similar to that of silk.

It is this process of ageing which has given rise to so much trouble where rubber goods are concerned. This is naturally very easily noted with condoms. These, once manufactured, may lie in stock for several months before being purchased, and during this time deterioration will gradually commence, with the result that upon using the condom will tear. Condoms prepared by the "DUREX" (Liquid Latex) process are free from this disability and, apart from their length of life, they are almost twice as strong as the normal variety, at the same time being much thinner than the gasoline product.

In order to demonstrate the abnormal strength of these "DUREX" products, one of these was blown up to just below bursting-point. A first-class condom prepared by the "gasoline process" was used as a control, and this was also inflated to a similar extent. Figure 3 shows the differences between the two products. It may be stated that they maintained this state for a period of three hours before they were deflated.

FIGURE 3.

PARTICULARS

	" W."	" DUREX."
Thickness*	3.5	1.9
Original length	7.5"	7.5"
Original width	2.1"	2.0"
Inflated length	21.0"	23.0"
Inflated width	7.0"	8.5"
Length } upon deflation . .	8.5"	8.25"
Width }	2.5"	2.35"
Price : Retail	10d.	10d.

" Inches.

* Measured in thousandths of an inch.

" W."

" DUREX."

CONCLUSIONS From the foregoing it will be evident that products marketed by The Bircon Laboratories and its associated company, The London Rubber Company, possesses ~~usual~~ qualities not shared by others. If a chemical method is to be used, then BIRCON Foam Tablets are pre-eminently the safest and best. If it is advisable to reinforce an occlusive pessary by chemical means, then again this product is advised, and, finally, if a condom is to be employed, the "DUREX" (Liquid Latex) is undoubtedly a far stronger and finer product than any other now on the market.

We do not desire the reader to accept these statements without proof, and hence have furnished the accompanying figures, which amply demonstrate these facts, which may be summed up as follows :

BIRCON is smaller than almost any other foam tablet.
BIRCON produces a better, more massive, and more creamy foam.
BIRCON contains an active spermicide.

BIRCON does not deteriorate.

BIRCON leaves scarcely any insoluble residue within the vagina.

BIRCON is odourless, can be easily employed, does not irritate.

BIRCON is very reasonable in price.

BIRCON is of British manufacture throughout.

No other tablet combines all these points.

"DUREX" Condoms are very thin.

"DUREX" Condoms are very strong.

"DUREX" Condoms do not deteriorate.

"DUREX" Condoms are very soft and pliable.

"DUREX" Condoms are not expensive.

No other condom is thus likely to be so satisfactory.

THUS WE CLAIM THAT A FAR GREATER SECURITY CAN BE ATTAINED IF OUR PRODUCTS ARE USED.

BIRCON

Sole Proprietors :

THE BIRCON LABORATORIES

ELARCO HOUSE
183, ALDERSGATE STREET
LONDON, E.C.

PRICE : *Retail*—2/6 per Tube of one dozen tablets.
Wholesale—16/- per dozen Tubes (each containing twelve tablets).

Special terms to clinics.

NOTE.—Members of the medical profession are invited to apply for quantitative analysis, biological report, Dr. Baker's report, and samples (*gratis*).

DUREX PROTECTIVES

Sole Proprietors :

THE LONDON RUBBER COMPANY

ELARCO HOUSE
183, ALDERSGATE STREET
LONDON, E.C.

PRICE : *Retail*—2/6 per carton of Three.

Wholesale—No. 980, Plain End, 22/6 gross.

No. 981, Teat End, 30/- gross.

NOTE.—Samples (*gratis*) will willingly be supplied upon application.

LITERATURE We realise that there is such an enormous literature upon the subject of Birth Control that some guidance is necessary if the medical practitioner is to obtain any real and adequate knowledge of the subject. In order to satisfactorily accomplish this we have consulted a worker who has specialised in this field, and we would wish to acknowledge our indebtedness to him for his advice upon this difficult matter.

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