

93975

**FUNCTION TEST OF PROTOTYPE CONDOMS**  
**AN EVALUATION OF 9B AND 9C**  
Astroglide and Silicone Lubricants

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Family Health International  
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**FHi**

Summary?

## Introduction

The spread of sexually transmitted diseases (STDs) and Acquired Immune Deficiency Syndrome (AIDS) has generated renewed interest in condoms in recent years. Concurrently, condom breakage has become a much more important issue for condom users, family planning program administrators and health policymakers on local and national levels. The development of stronger materials that resist breakage and do not deteriorate when stored under adverse conditions should increase condom efficacy, whether used for birth control or disease prevention. Improvements in materials that permit heat transfer through the condom and a change in device functioning which permits the penis to move freely inside the condom may further assist in increasing user acceptability of this method of contraception and disease prevention.

## Study Objectives

FHI's Prototype condom development program is an iterative process requiring information from actual use experiences to guide the various stages of product design. This study was designed primarily to evaluate consumer's preferences of two different lubricants (Astroglide and silicone). Data relating to overall acceptability and breakage rates of these condoms were also collected. The safety and/or effectiveness of these Prototypes in preventing pregnancy and disease transmission was not tested in this study.

## Study Products

The study tested one Prototype condom with two different lubricants. The condoms are lubricated with either 0.6 ml. Astroglide (Prototype 9B), a water-based lubricant which has been classified as a cosmetic by the FDA or 0.4 ml of medical grade silicone (Prototype 9C). The two devices varied only in the type of lubricant. The condoms are made of 50 micron Platilon film manufactured by Atochem. The resin used in this film is BASF Elastollan 1185A (polyurethane). The film is folded and heat sealed into an oblong shape and packaged in silver foil with a plastic lining to retain the lubricants.

## Methodology

Thirty nine couples were recruited locally for this study. Participating couples were required to meet the following criteria:

1. be at least 18 years of age;
2. protected against pregnancy by oral contraceptives, an IUD or sterilization; and not pregnant or nursing an infant at the time of the study;
3. not practice behaviors that are known to put one at increased risk for sexually transmitted diseases, including AIDS;

4. willing to use the study products within a four-week testing period;
5. willing to record their candid opinions about the study product using self-administered questionnaires;
6. willing to give written informed consent and sign a Confidential Disclosure Agreement.

The participants were asked to use two each of the two devices and to complete a self-administered questionnaire. Couples only tested two condoms of each Prototype because these designs are in an initial stage of development and no preference in lubricants was anticipated. Larger scale studies will be conducted when the prototypes are further along in the development process.

### Results

In total, thirty seven couples returned questionnaires. Of the thirty seven couples, one couple did not use two of the devices (for unknown reasons), while another couple refused to use their fourth device (because of discomfort with the three other test condoms used in this study). Participants attempted to use a total of 145 devices. In general, participants responses to the two devices were fairly negative (Table 1). On a 5 point scale from "like it very much" (1) to "strongly disliked it" (5) the means for both males and females for each Prototype was 4 ("somewhat disliked it"). Below are some quotes that illustrate participants general reactions to these Prototypes (see Appendix 1 for more comments):

"These condoms not only reduced sexual pleasure, they were a turn-off. They were so difficult for my husband to put on, and painful, that he sometimes lost his erection. Once on, sex was not pleasurable because they were too tight for him and the seam irritated me. I assure you, these condoms are not marketable, there is not even a comparison to latex condoms."

"These condoms are ridiculous. They were a pain to open, unfold and put on... The 2 flaps of plastic used to pull them on looked funny and got in the way. To most people condoms are a necessary evil and if these were the only available ones, I wouldn't use them."

When subjects were asked which Prototype they liked with respect to specific characteristics, the majority of the participants responded that they did not like either of the two test devices for any of the characteristics (Table 2). When asked which test condom's lubricant participants liked (Table 2), 24 (11 females and 13 males) indicated that they liked the Astroglide lubricant, while only 13 (5 females and 8 males) liked the silicone lubricant (27 did not like either lubricant and only 7 liked both of the lubricants). When asked which condom's

lubricant participants preferred, 26 (equal numbers of males and females) preferred the Astroglide, 17 (7 females and 10 males) preferred the silicone and 31 had no preference (Table 3). The main reason participants stated for preferring the Astroglide was that there was more lubrication (which made it easier to don, to penetrate, and produced less friction). However, respondents who preferred the silicone thought it was better because there was less lubrication (less slimy, less messy). It is interesting to note however, that 11 of the male participants thought the silicone lubricated Prototype was easier to put on (Table 2), while only 3 of the males responded that the Astroglide lubricated Prototype was easier to put on (21 males thought neither condom was easy to put on and only 1 responded that both Prototypes were equally easy to put on).

When asked whether the participants noticed any difference between the two Prototypes, 56 said that they did notice a difference. The main difference noted by the respondents was the lubrication (45).

The vast majority of the participants involved in the donning process noted problems with donning both of these Prototypes (Table 4). Specific donning problems mentioned by at least one third of those participants who had problems with donning were that the opening was too small, stretching the opening was difficult, pulling the devices onto the penis was uncomfortable, opening the package was difficult and that the Astroglide lubricant made handling difficult. The following comments, written by participants, describe donning problems (see Appendix 1 for more comments):

"Package very difficult to open and [difficult to] unroll condom. Also, size of opening small and hard to get on at times."

"Even after stretching openings 2 or 3 times, it was very difficult to put on penis without added lubricant. Sensitivity through this material was terrible. Condoms bunched up shortly after penetration, causing most discomfort to wife."

"Openings in condoms were too small and not in the center. This made some differences in putting them on. The holes did not always stretch enough and sometimes I thought it might tear."

"Extremely painful to put on, not easy to put on quickly. I would not use them if they were free!"

A majority of the male participants indicated that the condoms felt too tight around the collars (Table 5). Few of the male participants who thought the condoms were too tight around the collars indicated that they became looser during sex (14 for the Astroglide lubricated device and 3 for the silicone lubricated condom). Only two incidents of condom slippage were reported for the Astroglide lubricated condom (1 during intercourse and 1 during withdrawal), while 3 were reported for the silicone lubricated device (1 during intercourse, 1 during withdrawal and 1 response was missing).

Participants reported that the Astroglide lubricated condom broke or tore on 11 out of 72 occasions the silicone lubricated condom broke or tore on 4 out of 73 occasions, which accounts for a 10% breakage rate overall (Table 5). For the Astroglide lubricated condom, four breaks occurred at the collar, three indicated that the material itself broke, while two broke along the seam (and two were marked "other"). For the silicone lubricated condom, two breaks each were reported for the collar and the seam. Fourteen of the breaks were reported to have occurred during donning or "at the start of sex", while only 1 broke "during sex". Only one participant complained of the condom "bulging" and he had that problem for 3 out of the 4 condoms he used.

Two thirds of the females and three quarters of the males reported that each of the two Prototypes caused some type of irritation or discomfort (Table 6). For both devices, the main discomfort reported by the males was that the condom was painful to put on. Males also reported that the feel of the material was unpleasant, the condoms bunched up, and that the silicone lubricated Prototype had too little lubrication. The main discomfort reported by the females for both Prototypes was that the feel of the material was unpleasant. Females also reported that the seam was irritating, the noise was unpleasant and that, especially for the silicone lubricated Prototype, there was too little lubrication and too much friction.

Finally, when participants were asked to choose the type of condom they would use in the future, 64 out of 74 indicated that they would choose a standard, latex condom over either of the Prototypes (6 participants had no preference, 2 would choose either test condom, 1 would choose the silicone lubricated condom and 1 response was not applicable).

### Discussion

Because of the small and non-representative sample of users involved in the testing of Prototypes 9B and 9C, no firm conclusions can be made about the acceptability of these condoms in the general population. This particular study was to assess consumer's lubricant preferences as well as the acceptability of these Prototypes.

Although over one third of the participants had no preference as to the type of lubricant utilized, of those that did have a preference, more preferred the Astroglide. However, participant's reasons for these preferences were due largely to the amount of lubricant, rather than the feel of the lubricant. Participants who liked more lubricant tended to prefer the Astroglide, while those that liked less lubricant preferred the silicone. With these Prototypes there is the added confusion of needing lubrication for two distinct purposes; donning and penetration. One lubricant may be required for comfortable donning of the device, and another for penetration. During intercourse, couples prefer differing amounts of lubrication.

The study participants' somewhat negative responses to different aspects of the general design of these devices, combined with a 10% breakage rate suggests that this device will only be acceptable to the general population with major modifications.

Most of the complaints about these Prototype condoms centered around problems with donning the devices; including difficulty opening the package, the opening to the device being too small, difficulty in stretching the opening (which often caused breakage), pain on donning, and the lubricant causing difficulty in handling the condoms. In addition, these Prototypes caused some type of irritation or discomfort in over two thirds of the participants.

### Recommendations

The results of this study suggest the following recommendations:

- New, innovative ideas must be tried in order to overcome the donning problem. Until this problem is solved, consumers are unlikely to have overall positive responses to these flange design condoms.
- Confounding variables may be causing inconclusive results on lubrication preference suggesting that lubrication studies should be discontinued until an acceptable donning mechanism or condom has been designed.
- Complaints about the size of the opening in these Prototypes indicate that a series of studies should be initiated to determine optimal hole size for the majority of consumers.
- Further research must be done to design a condom which does not break during use. Research could include the testing of the design with different materials, stretch-softening these materials, as well as trying different donning and retention mechanisms.
- Fifty micron Platilon film with BASF Elastollan 1185A resin in its current formulation is unacceptable to consumers. The film is inflexible and does not conform to the shape of the penis. This causes pain and breakage during donning and bunching and irritation during use. Formulations used in earlier Prototypes were more comfortable, though still relatively unacceptable.
- General difficulty opening these packages combined with high acceptability of past packages warrant a return to earlier packaging types (i.e., gold foil as used to package Prototypes 5E and 10A).

**TABLE 1: GENERAL REACTION TO CONDOMS**

**N = 74\***

General Reaction:	Prototype 9B Astroglide (N=148)		Prototype 9C Silicone (N=148)	
	<u>females</u>	<u>males</u>	<u>females</u>	<u>males</u>
liked it very much	1	0	2	0
liked it fairly well	8	7	9	7
neither liked nor disliked	11	11	13	9
somewhat disliked it	20	22	11	32
strongly disliked it	29	32	36	25

\* Two condoms of each type were tested.

**TABLE 2: LIKED CHARACTERISTICS**

**N = 74**

Characteristics:	Prototype 9B Astroglide		Prototype 9C Silicone		Both Prototypes		Did not like either prototype	
	<u>females</u>	<u>males</u>	<u>females</u>	<u>males</u>	<u>females</u>	<u>males</u>	<u>females</u>	<u>males</u>
lubrication	11	13	5	8	4	3	16	11
sensitivity	6	7	3	4	3	2	24	23
putting on	4	3	6	11	2	1	16	21
texture	5	5	3	2	4	3	24	26

**TABLE 3: LUBRICANT PREFERENCE**

**N = 74**

	Prototype 9B Astroglide		Prototype 9C Silicone		No Preference	
	females	males	females	males	females	males
Which test condom's lubrication did you prefer?	13	13	7	10	17	14

**TABLE 4: DONNING**

**N = 74\***

	Prototype 9B Astroglide (N=148)	Prototype 9C Silicone (N=148)
Percentage of participants who had problems donning the condoms:	92%	82%
<b>Percentage of those participants who experienced the following specific problems during donning:</b>		
opening was too small	75%	70%
stretching opening was difficult	68%	67%
pulling condom onto penis was uncomfortable	66%	59%
opening package	40%	40%
lubrication made handling condom difficult	33%	6%
finding opening was difficult	28%	33%
condom was too long	20%	17%
unrolling condom	20%	6%
condom was too short	0%	0%
other	26%	20%

\*Two condoms of each type were tested

8

## TABLE 5: MALE QUESTIONS

N = 37\*

	Prototype 9B Astroglide (N=74)	Prototype 9C Silicone (N=74)
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	<u>males</u>	<u>males</u>
<b>How did the test condom feel around the collar?</b>		
too loose	1	2
just right	10	20
too tight	49	46
<b>If too tight, did collar become looser during sex?</b>		
yes	14	3
no	17	25
not sure	15	15
<b>Did condom slip off?</b>		
yes	2	3
no	58	65
<b>Did condom break?</b>		
yes, it broke	4	2
yes, it tore	7	2
no	58	65
<b>If yes, where did it break or tear?</b>		
seam	2	2
material itself	3	0
collar	4	2
other	2	0

\*Two condoms of each type were tested

**TABLE 6 : IRRITATIONS AND DISCOMFORTS**

**N = 74\***

	<b>Prototype 9B Astroglide (N=148)</b>		<b>Prototype 9C Silicone (N=148)</b>	
	<u>females</u>	<u>males</u>	<u>females</u>	<u>males</u>
<b>Percentage of participants who had irritations or discomforts:</b>	64%	78%	69%	76%
<b>Percentage of those participants who experienced the following specific irritations or discomforts:</b>				
texture unpleasant	62%	46%	60%	56%
seam was irritating	40%	7%	50%	15%
application painful	7%	67%	8%	59%
too little lubrication	24%	17%	40%	43%
condom bunched up	31%	37%	30%	35%
noise unpleasant	36%	20%	32%	26%
too much friction	29%	7%	40%	17%
condom pinched skin	5%	17%	4%	17%
condom caught hair	0%	15%	2%	9%
too much lubrication	5%	13%	0%	0%
odor unpleasant	0%	2%	0%	2%
taste unpleasant	0%	0%	2%	0%
other	5%	13%	6%	7%

\*Two condoms of each type were tested

## Appendix 1

Comments made on questionnaires about the test condoms?

Females:

Opening of the condoms was rather restrictive; again the length and width are excessive; one crackling noise is only unpleasant initially.

Red condom [silicone] on one occasion caused so much pain (from friction) that sex was interrupted.

Openings in condoms were too small and not in the center. This made some differences in putting them on. The holes did not always stretch enough and sometimes I thought it might tear.

Test condoms were very uncomfortable for partner. Would have had to use more lubrication on outside of condom because plastic would not "slide" in comfortably because of seam and little natural lubrication.

Condoms were difficult to put on. Greatly reduced sensitivity. I felt the seam on all four. Condom was uncomfortable and distracting. If I had to choose between using these condoms and not having sex at all, I might choose the latter.

It would help to have the condom rolled up like a latex condom - putting it on now is like trying to step into panty hose without pulling them up - it's easier if you put your foot in and roll them up your leg - same theory - with penises and condoms I think.

Too baggy.

My husband refused to use the 4th condom because sex became a painful chore. I didn't like these condoms either. Too bunched and irritating.

The lubrication was awful.

I can't imagine anyone using these things voluntarily.

They were much too difficult to use, and I thought they felt very unpleasant during use. The lubrication on the blue dot [Astroglide] was good, though.

These condoms not only reduced sexual pleasure, they were a turn-off. They were so difficult for my husband to put on, and painful, that he sometimes lost his erection. Once on, sex was not pleasurable because they were too tight for him and the seam irritated me. I assure [you] these condoms are not marketable, there is not even a comparison to latex condoms.

The material was very unpleasant and caused a lot of irritation. When there was lubrication, it was either too much or too little.

Seam was uncomfortable on several occasions.

The condoms looked like plastic bags. I did not like the way they felt or sounded.

The seam needs to be removed so you may have a better fit.

Was not pleased with them. Material was not as comfortable as latex. Would not purchase.

Condoms seemed very difficult to apply. They also were very large and not contoured. A lot of excess baggage.

Package very difficult to open.

Too much lubrication on blue [Astroglide] condom, sex was uncomfortable.

I think researchers should work on the ease of putting on the condom. If this were the only means of contraception, I'm sure many people would do without. Also, it looks like a sandwich bag. Maybe a circular reinforcement would be better than the flaps.

If I were interested in contraception only, I would use any other method besides these condoms. If I were not in a monogamous relationship and wanted to prevent STD's, I would use these condoms if they were all that were available.

Small opening in condom made it very difficult to put on. Bunching up was not comfortable. Lubrication was not nearly enough.

The seams on the condom are rigid and scratchy. These condoms are so unpleasant that we had to force ourselves to use them.

Condoms were extremely large, as a result of that sensitivity was lost. If condom fit better it would be liked more if marketed.

Males:

Good luck marketing them; they're awful.

All were difficult to open.

Two blue condoms would not go on at all. One red condom would only go halfway. Last red [silicone] condom would only go on with extreme force. Took partner and self to get condom on. Then it "choked" the s---t out of me. Did not use because it was unbearable to keep on!!

Go back to square one!

Very difficult to put on, opening too small, need more internal lubrication.

12

This series of condoms was unacceptable. They were hard and painful to put on and uncomfortable for both of us. They were so much of a pain to use that I refused to use the last one.

Hard to put on and did not have a natural feeling.

Extremely painful to put on, not easy to put on quickly. I would not use them if they were free!

I would not use them if I weren't paid to do so. They're too much like sandwich bags.

These condoms were very difficult to use. As if all "bad" characteristics of standard condoms had been grossly exaggerated.

Condoms hard to put on, opening was too small and blue dot [Astroglide] had too much lubrication. On a positive note, the sensitivity was greater than regular latex condoms and they don't catch the pubic hair like the others do.

Shape and size of the condoms were unusual, and therefore was a "turn off" during intercourse.

With significant lubrication the condom was ok. Otherwise it felt like I was wearing a garbage bag.

The test condoms did not conform with my penis, and made sex somewhat less enjoyable.

The hole where the male inserts the penis needs to be larger. The lubrication on the blue dot [Astroglide] was fine, but not the red dot [silicone].

I was not really satisfied with neither red [silicone] or blue dot [Astroglide]!!! Material was not as natural feeling as some I have used.

The biggest problem was sliding on the condom. Maybe lubrication on the inside would help.

My wife laughed at the first one. I thought it looked like a baggie. The package was difficult to open.

Package very difficult to open and unroll condom. Also, size of opening small and hard to get on at times.

They take some getting used to, because they are a break from the traditional. It was hard to find the opening and insert penis.

Condoms were uncomfortable and not very sensitive.

Condoms were hard to put on and they bulged too much.

Almost painful to put on at first; also very little sensation at 1<sup>st</sup> use, but increased foreplay and familiarity offset these problems.

Length was not adjustable. Difficult to put on, had to put it on like pantyhose.

Even after stretching openings 2 or 3 times, it was very difficult to put on penis without added lubricant. Sensitivity through this material was terrible. Condoms bunched up shortly after penetration, causing most discomfort to wife.

These condoms are ridiculous. They were a pain to open, unfold and put on. Especially the blue dot ones [Astroglide]. The 2 flaps of plastic used to pull them on looked funny and got in the way. To most people condoms are a necessary evil and if these were the only available ones, I wouldn't use them.

# MALE SURVEY

## INSTRUCTIONS

1. Check the top of this page to be sure that you are filling out the correct survey for your sex. Complete the "GENERAL INFORMATION" part of the survey. Only answer for yourself, not your partner.
2. Look at the unpackaged sample test condom and read the instruction sheet on how to put it on. Do not use this sample condom.
3. Now choose one of the packaged test condoms. Be sure to note the color of the dot on the condom package. After using the test condom with your partner during an act of vaginal sex, fill out the part of the survey called "FIRST TEST CONDOM".
4. Repeat the above step with all 4 condoms and fill out the correct parts of the survey.
5. After using all 4 test condoms, complete the last section called "GENERAL REACTION TO TEST CONDOM DESIGN" before sending the surveys back in the self-addressed, stamped envelope to the Condom Study Staff, Family Health International, PO Box 13950, Research Triangle Park, NC 27709. Be sure you return the surveys within 4 weeks of receiving the study packet.
6. You will be paid after the surveys are returned. You must use at least 2 condoms and complete the surveys. As a couple, you and your partner will be paid \$10 per condom used and \$35 to fill out the surveys. (Maximum payment is \$75 per couple.)

Function Test of Prototype  
Condoms 9B and 9C  
Site: Family Health International  
Project Number: 3386-9

## I. GENERAL INFORMATION:

1. ID Number: \_\_\_ M
2. What is your race? (circle one)
  - 1 = Black
  - 2 = White
  - 3 = Hispanic
  - 4 = Asian
  - 5 = Other, specify: \_\_\_\_\_
3. How old were you on your last birthday? \_\_\_\_ years
4. How often do you use latex condoms (when having vaginal sex)?
  - 0 = never used before
  - 1 = used condoms in past, but have not used them in last year
  - 2 = used condoms less than half the time in last year
  - 3 = used condoms more than half the time in last year
  - 4 = always used condoms in last year
5. Circle highest grade completed.
 

no schooling	0
primary education	1 2 3 4 5 6
secondary education	7 8 9 10 11 12
higher education	13 14 15 16 17 18 19+

END OF GENERAL INFORMATION SECTION

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## II. FIRST TEST CONDOM

6. What color was the dot on the condom package?  
1 = blue  
2 = red
7. How did you like the test condom?  
1 = liked it very much  
2 = liked it fairly well  
3 = neither liked nor disliked it (neutral)  
4 = somewhat disliked it  
5 = strongly disliked it
8. Did you have any problems putting on the test condom?  
8 = not applicable, partner put on the condom  
0 = no  
1 = yes—>if yes, what problems did you have?  
(circle all that apply)  
0 = opening package  
1 = unrolling condom  
2 = finding opening was difficult  
3 = opening was too small  
4 = stretching opening was difficult  
5 = lubrication made handling the condom difficult  
6 = pulling condom onto penis was uncomfortable  
7 = condom was too short  
8 = condom was too long  
9 = other, specify: \_\_\_\_\_
9. Did the test condom cause you any irritation or discomfort?  
0 = no  
1 = yes—>if yes, what irritation or discomfort did test condom cause (circle all that apply)?  
01 = painful to put on  
02 = condom bunched up  
03 = condom pinched skin  
04 = condom caught hair  
05 = the feel of the material was unpleasant  
06 = condom smelled bad  
07 = condom tasted bad  
08 = seam was irritating  
09 = too much lubrication  
10 = too little lubrication  
11 = noise unpleasant  
12 = too much friction  
88 = other(s), specify: \_\_\_\_\_
10. How did you like the lubrication on the condom?  
1 = liked it very much  
2 = liked it fairly well  
3 = neither liked nor disliked it (neutral)  
4 = somewhat disliked it  
5 = strongly disliked it

11. Did the test condom have enough lubrication?  
1 = too little lubrication  
2 = just enough lubrication  
3 = too much lubrication  
4 = didn't notice the amount of lubrication
12. Did you use any additional lubrication?  
0 = no  
1 = yes—>if yes, when did you put it on?  
1 = before putting the condom on  
2 = before penetration  
3 = during sex  
8 = other, specify \_\_\_\_\_  
  
if yes, what kind did you use? \_\_\_\_\_
13. How did the test condom feel around the collar (opening)?  
0 = too loose  
1 = just right  
2 = too tight—>if too tight, did collar become looser during sex?  
0 = no  
1 = yes  
2 = not sure
14. Did the test condom ever slip off?  
0 = no  
1 = yes—>if yes, when did it slip off?  
1 = at the very start of sex  
2 = during sex  
3 = during withdrawal  
4 = do not know
15. Did the test condom break, tear or bulge (bubbling of the material)?  
0 = no—>PROCEED TO NEXT SECTION AFTER USING SECOND CONDOM  
  
1 = yes, it broke  
2 = yes, it tore  
3 = yes, it bulged  
  
-->if yes, when did the condom break, tear or bulge?  
1 = at the very start of sex  
2 = during sex  
3 = during withdrawal  
4 = do not know  
  
-->if yes, where did it break, tear or bulge?  
1 = seam  
2 = condom material itself  
3 = collar (opening)  
4 = other, \_\_\_\_\_  
5 = do not know

PROCEED TO NEXT SECTION  
AFTER USING SECOND CONDOM

16

### III. SECOND TEST CONDOM

16. What color was the dot on the condom?  
1 = blue  
2 = red
17. How did you like the test condom?  
1 = liked it very much  
2 = liked it fairly well  
3 = neither liked nor disliked it (neutral)  
4 = somewhat disliked it  
5 = strongly disliked it
18. Did you have any problems putting on the test condom?  
8 = not applicable, partner put on the condom  
0 = no  
1 = yes—>if yes, what problems did you have?  
(circle all that apply)  
0 = opening package  
1 = unrolling condom  
2 = finding opening was difficult  
3 = opening was too small  
4 = stretching opening was difficult  
5 = lubrication made handling the condom difficult  
6 = pulling condom onto penis was uncomfortable  
7 = condom was too short  
8 = condom was too long  
9 = other, specify: \_\_\_\_\_
19. Did the test condom cause you any irritation or discomfort?  
0 = no  
1 = yes—>if yes, what irritation or discomfort did test condom cause (circle all that apply)?  
01 = painful to put on  
02 = condom bunched up  
03 = condom pinched skin  
04 = condom caught hair  
05 = the feel of the material was unpleasant  
06 = condom smelled bad  
07 = condom tasted bad  
08 = seam was irritating  
09 = too much lubrication  
10 = too little lubrication  
11 = noise unpleasant  
12 = too much friction  
88 = other(s), specify \_\_\_\_\_
20. How did you like the lubrication on the condom?  
1 = liked it very much  
2 = liked it fairly well  
3 = neither liked nor disliked it (neutral)  
4 = somewhat disliked it  
5 = strongly disliked it

21. Did the test condom have enough lubrication?  
1 = too little lubrication  
2 = just enough lubrication  
3 = too much lubrication  
4 = didn't notice the amount of lubrication
22. Did you use any additional lubrication?  
0 = no  
1 = yes—>if yes, when did you put it on?  
1 = before putting the condom on  
2 = before penetration  
3 = during sex  
8 = other, specify \_\_\_\_\_  
  
if yes, what kind did you use? \_\_\_\_\_
23. How did the test condom feel around the collar (opening)?  
0 = too loose  
1 = just right  
2 = too tight—>if too tight, did collar become looser during sex?  
0 = no  
1 = yes  
2 = not sure
24. Did the test condom ever slip off?  
0 = no  
1 = yes—>if yes, when did it slip off?  
1 = at the very start of sex  
2 = during sex  
3 = during withdrawal  
4 = do not know
25. Did the test condom break, tear or bulge (bubbling of the material)?  
0 = no—>PROCEED TO NEXT SECTION AFTER USING THIRD CONDOM  
  
1 = yes, it broke  
2 = yes, it tore  
3 = yes, it bulged  
  
-->if yes, when did the condom break, tear or bulge?  
1 = at the very start of sex  
2 = during sex  
3 = during withdrawal  
4 = do not know  
  
-->if yes, where did it break, tear or bulge?  
1 = seam  
2 = condom material itself  
3 = collar (opening)  
4 = other, \_\_\_\_\_  
5 = do not know

PROCEED TO NEXT SECTION  
AFTER USING THIRD CONDOM

#### IV. THIRD TEST CONDOM

26. What color was the dot on the condom?  
1 = blue  
2 = red
27. How did you like the test condom?  
1 = liked it very much  
2 = liked it fairly well  
3 = neither liked nor disliked it (neutral)  
4 = somewhat disliked it  
5 = strongly disliked it
28. Did you have any problems putting on the test condom?  
8 = not applicable, partner put on the condom  
0 = no  
1 = yes—>if yes, what problems did you have?  
(circle all that apply)  
0 = opening package  
1 = unrolling condom  
2 = finding opening was difficult  
3 = opening was too small  
4 = stretching opening was difficult  
5 = lubrication made handling the condom difficult  
6 = pulling condom onto penis was uncomfortable  
7 = condom was too short  
8 = condom was too long  
9 = other, specify: \_\_\_\_\_
29. Did the test condom cause you any irritation or discomfort?  
0 = no  
1 = yes—>if yes, what irritation or discomfort did test condom cause (circle all that apply)  
01 = painful to put on  
02 = condom bunched up  
03 = condom pinched skin  
04 = condom caught hair  
05 = the feel of the material was unpleasant  
06 = condom smelled bad  
07 = condom tasted bad  
08 = seam was irritating  
09 = too much lubrication  
10 = too little lubrication  
11 = noise unpleasant  
12 = too much friction  
88 = other(s), specify; \_\_\_\_\_
30. How did you like the lubrication on the condom?  
1 = liked it very much  
2 = liked it fairly well  
3 = neither liked nor disliked it (neutral)  
4 = somewhat disliked it  
5 = strongly disliked it

31. Did the test condom have enough lubrication?  
1 = too little lubrication  
2 = just enough lubrication  
3 = too much lubrication  
4 = didn't notice the amount of lubrication
32. Did you use any additional lubrication?  
0 = no  
1 = yes—>if yes, when did you put it on?  
1 = before putting the condom on  
2 = before penetration  
3 = during sex  
8 = other, specify \_\_\_\_\_  
  
If yes, what kind did you use? \_\_\_\_\_
33. How did the test condom feel around the collar (opening)?  
0 = too loose  
1 = just right  
2 = too tight—>if too tight, did collar become looser during sex?  
0 = no  
1 = yes  
2 = not sure
34. Did the test condom ever slip off?  
0 = no  
1 = yes—>if yes, when did it slip off?  
1 = at the very start of sex  
2 = during sex  
3 = during withdrawal  
4 = do not know
35. Did the test condom break, tear or bulge (bubbling of the material)?  
0 = no—> PROCEED TO NEXT SECTION AFTER USING FOURTH CONDOM  
  
1 = yes, it broke  
2 = yes, it tore  
3 = yes, it bulged  
  
-->if yes, when did the condom break, tear or bulge?  
1 = at the very start of sex  
2 = during sex  
3 = during withdrawal  
4 = do not know  
  
-->if yes, where did it break, tear or bulge?  
1 = seam  
2 = condom material itself  
3 = collar (opening)  
4 = other, \_\_\_\_\_  
5 = do not know

PROCEED TO NEXT SECTION  
AFTER USING FOURTH CONDOM

**V. FOURTH TEST CONDOM**

36. What color was the dot on the condom?  
1 = blue  
2 = red
37. How did you like the test condom?  
1 = liked it very much  
2 = liked it fairly well  
3 = neither liked nor disliked it (neutral)  
4 = somewhat disliked it  
5 = strongly disliked it
38. Did you have any problems putting on the test condom?  
8 = not applicable, partner put on the condom  
0 = no  
1 = yes—>if yes, what problems did you have?  
(circle all that apply)  
0 = opening package  
1 = unrolling condom  
2 = finding opening was difficult  
3 = opening was too small  
4 = stretching opening was difficult  
5 = lubrication made handling the condom difficult  
6 = pulling condom onto penis was uncomfortable  
7 = condom was too short  
8 = condom was too long  
9 = other, specify: \_\_\_\_\_
39. Did the test condom cause you any irritation or discomfort?  
0 = no  
1 = yes—>if yes, what irritation or discomfort did test condom cause (circle all that apply)?  
01 = painful to put on  
02 = condom bunched up  
03 = condom pinched skin  
04 = condom caught hair  
05 = the feel of the material was unpleasant  
06 = condom smelled bad  
07 = condom tasted bad  
08 = seam was irritating  
09 = too much lubrication  
10 = too little lubrication  
11 = noise unpleasant  
12 = too much friction  
88 = other(s), specify: \_\_\_\_\_
40. How did you like the lubrication on the condom?  
1 = liked it very much  
2 = liked it fairly well  
3 = neither liked nor disliked it (neutral)  
4 = somewhat disliked it  
5 = strongly disliked it

41. Did the test condom have enough lubrication?  
1 = too little lubrication  
2 = just enough lubrication  
3 = too much lubrication  
4 = didn't notice the amount of lubrication
42. Did you use any additional lubrication?  
0 = no  
1 = yes—>If yes, when did you put it on?  
1 = before putting the condom on  
2 = before penetration  
3 = during sex  
8 = other, specify \_\_\_\_\_  
  
If yes, what kind did you use? \_\_\_\_\_
43. How did the test condom feel around the collar (opening)?  
0 = too loose  
1 = just right  
2 = too tight—>if too tight, did collar become looser during sex?  
0 = no  
1 = yes  
2 = not sure
44. Did the test condom ever slip off?  
0 = no  
1 = yes—>if yes, when did it slip off?  
1 = at the very start of sex  
2 = during sex  
3 = during withdrawal  
4 = do not know
45. Did the test condom break, tear or bulge (bubbling of the material)?  
0 = no—> **PROCEED TO NEXT SECTION**  
  
1 = yes, it broke  
2 = yes, it tore  
3 = yes, it bulged  
  
-->if yes, when did the condom break, tear or bulge?  
1 = at the very start of sex  
2 = during sex  
3 = during withdrawal  
4 = do not know  
  
-->if yes, where did it break, tear or bulge?  
1 = seam  
2 = condom material itself  
3 = collar (opening)  
4 = other, \_\_\_\_\_  
5 = do not know

**PROCEED TO NEXT SECTION**

**VI. GENERAL REACTION TO TEST CONDOMS:**

46. Which test condom's lubrication did you like?  
(Indicate color)  
1 = neither color  
2 = both colors  
3 = red dot  
4 = blue dot
47. Which test condom's sensitivity (natural feel) did you like?  
(Indicate color)  
1 = neither color  
2 = both colors  
3 = red dot  
4 = blue dot
48. Which test condom did you think was easier to put on?  
(Indicate color)  
1 = neither color  
2 = both colors  
3 = red dot  
4 = blue dot
49. Which test condom's texture did you like? (Indicate color)  
1 = neither color  
2 = both colors  
3 = red dot  
4 = blue dot
50. Which test condom made an unpleasant sound?  
(Indicate color)  
1 = neither color  
2 = both colors  
3 = red dot  
4 = blue dot
51. Did you notice any difference between the blue and the red test condoms?  
0 = no  
1 = yes —> If yes, what difference did you notice?  
1 = ease of putting on  
2 = size of opening  
3 = lubrication  
4 = size of condom  
5 = noise  
6 = how well it stayed on  
8 = other, specify \_\_\_\_\_
52. Which test condom's lubrication did you prefer?  
(Indicate color)  
0 = no preference  
1 = blue, why? \_\_\_\_\_  
2 = red, why? \_\_\_\_\_

53. If you had to use a condom in the future and the cost of the test condom was the same as a latex condom, which kind would you choose?  
0 = cannot respond, never used a latex condom  
1 = standard latex condom  
2 = blue test condom  
3 = red test condom  
4 = either test condom  
5 = no preference

54. Any additional comments about the test condoms, the lubrication, the survey or the study?

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55. Would you like to be in future condom studies?  
0 = no  
1 = yes

**THANK YOU VERY MUCH  
FOR COMPLETING THIS SURVEY**

***DON'T FORGET TO SEND IT BACK TO US  
QUICKLY SO YOU CAN RECEIVE PAYMENT***